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Educational News and Editorial Comment

SUPERVISION

Systematic study of the problems of the classroom and of classroom teachers has been common during recent years. It is in this field that educational science has collected the most of its material. There is encouraging evidence that the next step is being taken in some quarters through careful consideration of the problems of the supervisor.

Many school principals and other supervisory officers in this country have had no training whatsoever for their professional duties other than that which they acquired while teaching children in the classroom. The result is that supervision has been scarcely more than a relatively inexpert effort on the part of mature teachers to give advice to younger members of the profession. Sometimes supervisory advice has not had even the sanction which comes from age and experience. Often it has been colored by purely personal prejudice and has been worse than useless.

The *Baltimore Bulletin of Education*, the official publication of the Baltimore public schools, devotes a part of a recent issue to the duties of the supervising principal. A section of a report prepared by

Margaret A. Harney presents a series of practical cautions to be observed in the organization of teachers' meetings. These cautions may be quoted as follows:

1. Avoid trying to do too much in any one meeting or series of meetings. Take time to follow up a good lead that teachers are interested in, even if the program may not be entirely covered. Much of what has been planned may well go over to the next meeting or even the next year.

2. Do not try to do all the work alone. Ask teachers to take part. They soon learn to volunteer. Organize working groups. I try to remember that my interest in a subject has come largely from my study of it and that teachers become interested in proportion as I relate the topic to their daily work and get them thinking and working on it.

3. Try to get all the teachers, so far as possible, into the discussion by asking their opinion, if they do not enter it voluntarily.

4. Select a comfortable room. Keep the meetings as informal as conditions will permit but be able to hold everyone to the question so that the work will move along.

5. Keep the discussion constructive. Never illustrate a point by mentioning some wrong practice seen in the rooms. On the contrary, I think it well to take occasion to illustrate with good things we have seen our own teachers do.

6. Do not hold meetings too long. Teachers are not all very strong. They get tired and are not as interested as we principals ought to be. It is not bad sometimes to leave a discussion where teachers are eager for more.

7. Permit interruptions by questions and illustrative contributions. This is a sure sign of teacher activity. Invite a challenge at every point involved.

8. While, of course, expecting all teachers to be present, do not wait for tardy ones. Begin on time. As meetings grow valuable, tardiness will be eliminated.

9. Keep the meeting well balanced and well timed. Provide time for general discussions and be prepared with enough applications to make the discussion *active* and *pertinent.*

10. That the meeting may be brought to a proper conclusion, always sum up the points that have been brought out. Suggest a few applications or further questions and summarize the discussion. This leaves the teachers with a consciousness that something worth while has come out of the meeting and with the feeling that the principal had a real purpose.

11. At the close, announce the topic for the next meeting and perhaps the leaders. This seems to be good psychology. It awakens interest, stimulates thinking, and encourages teachers to go at it.

12. The last of all, through some means or other, get this thought across to the group: that the purpose of it all is *to improve classroom instruction.*

A publication of the Chicago Principals' Club prepared by the Subcommittee on Supervision, of which Gertrude Corrigan is chair-

man, contains the following list of the duties of a school principal which cannot be delegated and of the duties which may be delegated.

Duties That Cannot Be Delegated

1. Planning the organization of the school.
2. Assigning new pupils whose grading is in doubt.
3. Classifying and disposing of the "individual" case, e.g., the unfit child.
4. Arranging schedules or programs that concern several divisions or the entire school, e.g., programs for industrial arts or other departmental exchange; schedules for gymnasium instructor, practice student, or bath attendant, for hall and playground supervision.
5. Deciding in regard to compulsory cases or special cases for the truant officer; applications for labor certificates or for relief from the Children's Aid.
6. Discipline cases referred by teachers.
7. Conferences with patrons in person or by telephone.
8. Efficiency ratings of teachers and substitutes.
9. The budget.
10. Final selection of books, educational material, and equipment.
11. Matters relating to parent-teacher association.
12. Conferences with the visiting teacher on special matters of social service.
13. Consultations concerning school plant.

Duties That May Be Delegated

(Assuming that the principal has at least a part-time office assistant.)

1. Answering telephone.
2. Enrolling pupils and taking care of register or registration cards.
3. Cataloguing and filing reports, records, and bulletins.
4. Writing of transfers, labor certificates, truant officer's lists, compulsory petitions, aid cards, application to county agent.
5. Making out of regular reports to the central office, e.g., pay-rolls, attendance summaries, fire-drill reports, bathroom and playground reports, receiving forms.
6. Writing of requisitions for supplies and equipment.
7. Checking up and distributing supplies.
8. Circulating supplementary reading, maps, globes, and other equipment.
9. Arranging assembly programs, seating of assembly hall, placing of school exhibits.
10. Caring for pupils before school and during intermission in playground, playrooms, and corridors.
11. Supervision of monitors and safety patrol and settlement of minor cases of discipline in which they are concerned.

At times and under certain circumstances it may not be possible to delegate the above duties. Adjustment rests with the individual principal.

The State Department of Education of Maryland has issued a bulletin entitled *A Year's Supervision of Elementary Instruction in Caroline County, 1923–1924.* This is described in the Foreword as a second bulletin on supervision, and it is announced that the State Department of Education expects to publish a bulletin each year giving an account of excellent work done in the counties of the state.

The present bulletin on Caroline County opens with a statement of the major objectives which it was sought to attain during the year. The succeeding divisions of the report tell how these objectives were brought to the attention of the teachers of the county and how help was given in reaching the objectives.

One of the major objectives was to improve instruction in arithmetic. The pupils in the schools of the county were tested. The teachers were then encouraged to study the returns from the tests for the purpose of discovering what remedial measures were necessary. The results of these detailed analyses of the arithmetic tests are summarized in the following table, which shows the frequency of the various errors:

CHIEF ARITHMETIC ERRORS AND THEIR FREQUENCY

	Per Cent
1. Superficial reading—modifying conditions of problem not noted carefully	51
2. Incorrect reasoning of problem	14
3. Inaccuracies in processes, especially in addition and multiplication	12
4. Omission of problems—apparent lack of comprehension or ineffective attempts	8
5. Careless recording of answers (failure to reduce fraction, failure to include decimal point, etc.)	4
6. Lack of knowledge of everyday facts (tables of measure, etc.)	3
7. Omission of final zero in quotient	2
8. Other errors	6
Total	100

If concrete materials such as the foregoing can be brought together on a sufficiently large scale to constitute courses for principals,

there will be created a new and very useful branch of educational training. It will then be possible for experienced teachers, when they find themselves taken out of classrooms and put in charge of buildings as principals, to prepare for the more advanced work of their new positions in somewhat the same way that teachers-in-training prepare for their work through the study of the accumulated experience of classroom teachers as written down in the familiar textbooks on methods of teaching.

A LARGER UNIT OF SCHOOL ORGANIZATION

Several states are wrestling with the problem of devising a larger unit of school administration than the common-school district.

The rural-school survey of New York State proposed the organization of a community district, which should be determined by the social and economic dependence of areas of the state, which include in each case a number of rural districts, upon the towns always to be found near the center of such areas.

This type of larger unit is before the New York legislature at the present session after being considered at each of the sessions since the survey.

A somewhat similar measure is being advocated by the State Department of Education of Missouri and is being considered as a substitute for the county unit, which was adopted in that state by the last legislature but almost immediately repudiated by referendum.

The educational commission created at the last session of the legislature of Illinois considered seriously the recommendation of a community unit but will probably decide to advocate a county unit because such a unit seems more likely to be acceptable to a legislature which is acquainted with the county as a recognized political division of the state.

It may be that the county unit will have to be accepted by educators in order to secure a remedy for the evils resulting from the organization of small districts, which are common in all of the states. If so, there should be a clear understanding that the county unit is not and cannot be the final solution of the problem. Ultimately the schools will have to be located and controlled in some fashion other than according to the arbitrary geometrical boundaries of counties;

they will have to be built where they can be most easily reached along the highways which determine community relationships.

It is discouraging to find that such considerations as the foregoing are not given any treatment in a recent bulletin issued by the United States Bureau of Education under the title, *A Manual of Educational Legislation for the Guidance of Committees on Education in the State Legislatures*. This bulletin seems to assume that the only kind of larger district which should be advocated, other than the consolidated district which appears when a central building is erected by a community, is the district which conforms to the present township or county lines. Several pages are devoted to the description of an effective county organization. It cannot be denied that a county organization would be better than the present small common-school district, but the Bureau of Education ought to give legislatures some insight into the final and most advantageous form of organization, namely, the community district.

The paragraph in this bulletin introducing the discussion of the county unit contains information which shows the extent to which the general idea of a larger school unit has already spread throughout the United States. This paragraph is as follows:

> The county unit is the term applied to systems in which the schools in the county (city schools sometimes excepted) are organized as a single system under one board of education and supported largely by county funds. There are many types of county systems in operation. Real classification is not attempted, as organizations differ in many particulars among states called "county-unit states." Ten states have centralized to the extent that the county board of education is the paramount board in the management of the schools. These ten are Alabama, Florida, Kentucky, Louisiana, Maryland, New Mexico, North Carolina, Tennessee, Virginia, and Utah. In three of these—Florida, Louisiana, and Maryland—city schools as well as country schools are under the management of county boards. In the other states the incorporated cities are independent in most respects. Five other states have partly the county and partly the district system, or such a division of authority between district and county that they may be considered as in a state of transition from district to county system. These states are South Carolina, Mississippi, Georgia, Oregon, and Montana. In a number of other states—Arizona, Washington, and California, for example—the county is important in school support but not in administrative control.

EXAMINATION OF TEACHERS

Public Personnel Studies, the journal of the Bureau of Public Personnel Administration of the Institute for Government Research, located in Washington, D.C., contains in the issue of December, 1924, an interesting article describing the operations and methods of the Board of Examiners of New York City, the body within the New York City school system which certifies teachers. The article is especially valuable because of its comments on the general problem of certificating teachers.

The opening paragraph of this article shows the scope of the work of the New York board:

Significance of the board's work.—The Board of Examiners of the New York City Board of Education represents the most ambitious attempt in the United States to establish a merit system under some organization other than a civil service commission. The board does all the examining work on which the licensing of approximately 30,000 regularly appointed teachers in the public-school system of New York City is based. Because of the considerable turnover, especially among substitute teachers, evening-school teachers, and similar groups, the regular volume of work is large; from September, 1923, to September, 1924, for example, more than 22,000 applications were disposed of. It also does considerable other personnel work described below. In a word, the board constitutes a personnel agency whose work is by no means confined to examining and which wields a direct power and an indirect influence fairly comparable to that exercised by a good many well-administered civil service commissions.

Equally interesting and perhaps more significant for the careful consideration of educators are the comments made on the methods of our profession. Some of the critical paragraphs are as follows:

The prevalence of the spoils idea in selecting teachers.—As a rule, the teaching profession is vehement in its protestations that the remainder of the public service is subject to the influence of the spoilsman but that in teaching politics of the bad kind is taboo. Unfortunately, the facts do not accord with such claims. It is a rare county superintendent, for example, who is able to hold out when a citizen of supposed probity and undoubted local influence announces that his daughter or his neighbor's daughter, "who is a fine girl," would like to teach and will he please see that she gets a license because such and such a position is open to her whenever that formality is complied with. It is equally difficult for the state examining authorities to hold out when the local county superintendents exert their influence in behalf of certain people. . . . .

Bad traditions as to qualifications.—The development of effective teacher-examining procedure undoubtedly has been badly hampered by some long stand-

ing traditions. One of these is the old saying that "knowledge is power" and the consequent reliance upon written examinations of academic knowledge. In teaching, perhaps more than in almost any other kind of work, personal traits are all-important. The relation between teacher and pupil is such that worthwhile teaching is pretty completely dependent upon the teacher's ability to establish and maintain the proper relationship; and this in turn is dependent to a large extent upon personal traits. The written examinations to which teachers have been subjected, moreover, have not generally placed sufficient emphasis upon the technique necessarily involved in imparting information to others and the principles back of this technique. Those responsible for teacher-examining work have done practically nothing with the problem of determining moral character, which, it may be admitted in passing, is one which proves troublesome to civil-service examiners but one which, it should also be stated, they have attacked with some slight degree of success. . . . .

Failure to develop a formal classification of teaching positions.—As yet, the teaching profession has done little toward working out the formal occupational classification of positions with definite written statements of duties to be performed and of qualifications essential and desirable which forms the basis for the examining work in most of the large jurisdictions where personnel problems are handled through a civil service commission. It is true, of course, that in a somewhat informal manner crude classifications have been developed and are used to some extent for teacher-examining purposes. Very little study, however, has been given to the problem of developing and putting into written form qualification requirements aside from academic training and, for some kinds of positions, the kind and amount of experience required. Without this basic preliminary work, the examining of teachers can no more be carried on effectively than is possible without similar preliminary work for policemen or inspectors or clerks or bacteriologists.

EDUCATIONAL RESEARCH BY A SOCIETY OF TEACHERS

It is not the purpose of this editorial to review in detail the unique volume which appeared recently as a result of the organized efforts of the New York Society for the Experimental Study of Education. Comment here will be limited to reference to the way in which the volume was prepared.

The title of the book in question is *Contributions to Education*. It is made up of reports of investigations carried on by members of the society. This organization was established in 1918 by teachers in and around New York City with a view to stimulating among its members original inquiries into school problems. The membership includes teachers in all grades of educational institutions from the kindergarten to the university. The society has increased in size

from an original membership of seventy-eight to a membership of more than a thousand. It was aided in some of the investigations reported by subventions from the Commonwealth Fund. It secured a part of the support for its inquiries directly from membership fees.

The appearance of such a body of reports of work done in the field of educational science by an organization of teachers ought to stimulate other groups of teachers to see the possibilities of co-operative organization for the purpose of promoting scientific work. It is doubtless true that through productive work of this sort teachers will not only contribute to educational science but also cultivate a larger appreciation of the results of investigations carried on and reported outside of their own organization.

The New York Society for the Experimental Study of Education is to be congratulated on its production of this series of studies. Especially is credit for the successful consummation of the enterprise to be given to the vigorous secretary of the organization, Professor J. Carleton Bell, of the College of the City of New York.

HEALTH

The conception of what constitutes proper health instruction in the schools is constantly growing broader as school systems accumulate experience and as the public agencies interested in promoting health contribute new materials which can be used by teachers.

One example of the type of health supervision practiced in the schools is described in a recent issue of the *School Review*, the official publication of the Denver public schools.

> During the past few months the dental department has examined the teeth of approximately 18,000 children from the kindergarten to the eighth grade, inclusive. It has given the children of the upper grades special attention, making a careful examination to seek out any cavities that might be present in permanent teeth. It has laid especial stress upon cleanliness of the mouth as a prevention of pyorrhea and the occurrence of decay. It has explained to the children the necessity of filling the smallest cavity, thus preventing the probable total destruction of a tooth, an abscess, and subsequent ill health.
>
> Where decay, abscessed teeth, bad gum conditions, or any dental defect has been found, the parents have received a notification card. Approximately 15,000 cards have been sent out this year. The department is concerned over the fact that so few of these cards have been returned with the information checked that the child has had the necessary dental attention. It wonders why more cards

are not returned. Are the children careless about taking them home, or are the parents indifferent about the condition of their children's teeth?

If the parents of one of these children were out riding in their car and someone called to them that they had a flat tire, no doubt, they would stop to repair it. Such notifications are quickly given attention. But how about the punctures in children's teeth? If parents could only be made to realize that good teeth and a clean mouth have an important bearing upon the health of the child, the department feels quite certain that they would give these cards a little more serious thought.

Possibly one of these cards may be the means of saving a child's life. What child can be healthy with four or five abscessed teeth discharging pus either into the mouth or into the blood stream? Even one abscessed tooth is a serious matter. Invariably where abscesses are present, the teacher will say that the child has lost time on account of illness. Recently, in following the medical examiner to one of the schools, it was discovered that many children had bad heart conditions. Upon examination of the teeth, it was found that a great many of the children had from one to five abscessed teeth besides others badly decayed and that there was no evidence of a toothbrush having been used for months. Is it any wonder the children have heart trouble, stomach trouble, or any other systemic disease?

Many children are not brushing their teeth, as is evidenced by the deplorable gum conditions which exist throughout all the schools. The teeth are covered with green stain, food débris, and tartar, and the gums are red and inflamed. Pyorrhea is the direct result of neglect, to say nothing of the decay which takes place under this mass of slimy coating. It is not sufficient to brush the teeth alone. The gums should be brushed and massaged as well so that they will be kept hard, pink, and firm. This will prevent tartar from collecting around the necks of the teeth. The department from time to time gives toothbrush drills in the schools instructing the children how to brush the teeth properly, so please see that they have toothbrushes and use them at least twice a day.

Do not neglect the temporary or so-called "baby teeth" as they serve a twofold purpose—that of mastication and as guides in bringing the permanent teeth into their proper places—and don't forget that these little teeth abscess even more quickly than the permanent teeth.

Children should be taken to the dentist at least twice a year, as the small cavities are easy to fill and cause no pain to speak of. This is cheap "tooth insurance" and also "health insurance," for the cavities in the teeth form a breeding-place for the germs of diphtheria, scarlet fever, and other contagious children's diseases.

It is quite obvious that the children in the kindergarten and first grade have the best teeth and cleanest mouths as a rule, but after they learn their way to the candy store across the street the teeth soon begin to decay. This candy-eating, coupled with neglect, would wreck the best set of teeth in the world as well as cause many digestive disorders.

For the welfare of the children, the dental department asks for the parents'

co-operation. Please do not ignore these notification cards as so many scraps of paper and idly toss them into the fire or the waste basket. They are danger signals, and the instruction cards which accompany them should be read carefully for therein is contained much valuable information.

A second example is taken from the *Detroit Educational Bulletin*.

For the past four years teachers in Detroit's elementary schools, both public and parochial, have each fall weighed and measured all the children. A special list has been made of all those who were found to be 15 per cent or more underweight, according to the Emerson scale. These children are given a complete medical examination, during which the examining physicians make such recommendations as they see fit concerning the child's nutritional condition. Those specially recommended are placed in nutrition classes—more aptly called health-habit formation classes. Approximately two thousand children are cared for in such classes each year.

The following table gives the percentage of children in each district found to be 15 per cent or more underweight from 1921 through the present year:

PERCENTAGE OF DETROIT ELEMENTARY-SCHOOL CHILDREN WHO WERE 15 PER CENT OR MORE UNDERWEIGHT

District	Year			
	1921	1922	1923	1924
I	8.2	7.8	7.0	6.1
II	7.1	7.5	6.7	6.3
III	7.1	7.1	6.8	6.4
IV	6.9	8.3	7.3	6.1
Average	7.6	7.7	7.0	6.2

The actual numbers of children who were 15 per cent or more underweight, by years, together with the elementary-school enrolment of those schools in which the Health Department examined children are as follows:

Year	Number of Underweights	Enrolment in Schools Examined	Percentage of Increase
1921	10,309	135,882	.....
1922	11,918	154,262	11.9
1923	11,903	169,939	9.2
1924	10,720	172,813	1.7

The average of 15 per cent or more underweights for the city as a whole was 7.6 per cent in 1921, 7.7 in 1922, 7.0 in 1923, and 6.2 this year. Had the 1921 rate prevailed in 1924 there would have been 13,134 severely underweight chil-

dren—2,414 more than actually existed. This is a very gratifying improvement, and, while it is impossible to attribute it to any one factor, there is some reason to believe that the constant weighing of children has aroused an increasing interest in growth and that health-instruction classes, health plays, health-crusade classes, nutrition classes, and the open-air schools and open-window rooms are beginning to show definite results. Detroit's children are gaining in weight.

The differences between the districts were much greater in 1921 than in 1924. In 1921 the lowest district had 6.9 per cent and the highest 8.2 per cent, while in 1924 the lowest was 6.1 per cent and the highest 6.4 per cent. The difference between the 1921 and 1922 percentages as given in the table may be due to the fact that in 1922 the districts were somewhat changed. While there has been a general improvement, it has been most noticeable in the better districts.

As an example of available material, a pamphlet of forty-eight pages issued by a commercial house, Johnson and Johnson, of New Brunswick, New Jersey, may be mentioned. This is entitled *Household Handbook* and is described on the title-page as a book which contains information on "How to Prevent the Spread of Disease," "How to Keep Well," "Household and Toilet Hints," "First Aid to the Injured," "Safety First," etc.

The Bureau of Education has issued a bulletin on health education, the seventeenth of a series in this field, entitled *Helps for the Rural School Nurse.*

With stimulations of this kind, suggesting a broad program of health instruction in the school, there ought to be a clear recognition of the fact that physical education in the limited sense in which it used to be defined is only a part, and a very small part, of the training of pupils to care for their bodies.

ELEMENTARY GEOGRAPHY: OBJECTIVES AND CURRICULUM

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The nature of modern geography.—One cannot effectively consider objectives in the teaching of any subject without first having a definite comprehension of the nature of that subject. What, then, is modern geography? It is a descriptive and explanatory science, dealing with the relations between man and his natural environment. By "natural environment" there is meant, of course, the combined physical, plant, and animal environments. The distinctive function of geography is both to describe and to explain the relationships of man to his natural environment; to examine and interpret the adjustments which groups of people have made to the combinations of natural environmental conditions that exist in the regions in which they live; to explain why men use the land and its resources as they do; to study the advantages and disadvantages, the opportunities and handicaps, of unit regions throughout the world for utilization by man. The essence of this may be stated in a very simple way by saying that in studying modern geography one studies why people work and play and live in different lands in the ways they do, or, again, that in studying the geography of any part of the world one is concerned with learning how the people there have made or can make their work and play and their ways of living fit the kind of country in which they dwell.

Thus defined, geography has a field cultivated but little, if at all, by any or all of the other natural and social sciences; has a unity formerly lacking; and has a point of view unique among the sciences which deal with humanity. Thus defined, geography is neither a natural science nor a social science; its field lies between the domains of those groups of sciences. These statements do not, of course, for the briefest moment mean that geography can claim exclusive ownership of all of the facts with which it deals. *No* science enjoys

exclusive possession of all the data with which it is concerned, and whether a fact is geographical or not depends in many cases on how it is used.

Principal objectives.—1. The first objective in the teaching of elementary geography, and the most fundamental one, is to emphasize the application of geography to the immediate problems of life; to show *how* men live, *what* they do, and, so far as practicable, *why* they live and work as they do in different environments in various parts of the world; to establish a background which will aid the pupil in later fitting his own life intelligently into his physical surroundings or in choosing surroundings to which his capacities are suited.

In order to realize this objective, it is necessary to deal from beginning to end with the relations of specific groups of people to their natural environments. The treatment throughout the elementary course should therefore be *regional* in character. In teaching the geography of any given region, it is important to choose for study, from the innumerable facts presented by the region, a comparatively few items that are of true geographical quality and of outstanding importance in the life of the region. Just as individual people have personal traits, so individual regions have distinctive geographical characteristics. Thus the basic concept to develop with reference to the region just east of the Rocky Mountains is that of a grazing and forage-crop country, and the particular items treated in the geography of the region should be chosen, for the most part, with reference to the contribution which they can make to the development of that concept. For example, cattle could not be pastured successfully throughout the winter on some lands now used for pastures in the northern part of the region if it were not for the strong winds which blow the snow off the grass in spots. Moreover, the winds in summer help to cure the grass on the ground so that it makes nutritious, natural hay for winter feeding. Then, too, warm chinook winds at times melt the snow from the pastures so rapidly that these winds are locally called "snow-eaters." Throughout the year, winds are utilized in many places in operating windmills which pump water for stock. By introducing such facts, one is contributing directly to the concept of the region as a grazing land by

showing relationships between its use for grazing and certain factors of the natural environment, and those facts thereby become relevant material in a Great Plains unit. Again, in noting the characteristic features of towns in the region, emphasis on stock-loading pens and on other facilities for the shipping of stock that likewise constitute conspicuous features in the landscape of nearly all of them not only gives concreteness to the concept or "picture" of these towns but serves at the same time ably to support the major theme to be played upon in the region as a whole.

In passing to a new region, the text and the teacher should lead the pupils to carry forward from regions already studied such relationships as find significant application in the new area, should bring out noteworthy differences between the regions, and, of course, should develop the new relationships of outstanding import that are encountered. Suppose, for example, that the children have studied logging in the Puget Sound country and have seen that many of the logs must be handled individually because of their great size and that special tracks are laid and special machinery is used in order to facilitate their transport from the places where they are felled to the places where they are loaded for shipment to the sawmills. Later, when these children study the northern Minnesota lumbering region, they have in mind as a "carry-over" the general nature of logging operations, and these they should be asked to state at the outset for themselves. They learn as new material that there are interesting differences, however, in the methods of moving logs from felling places to loading stations. Since the trees (a factor, it is to be noted, of the natural environment) are in most cases smaller than the giant trees of the Northwest, more than one can, in many cases, be "snaked" out at once, especially if tractors are used for power. Moreover, in winter some of the roads are occasionally sprinkled with water in many places. The water quickly freezes, and the ice facilitates the movement of the sleds used in hauling some of the logs. In a region of mild winters, such as the Pacific Northwest, such practices would be impracticable. In the case of the cypress and gum swamps of the Southeast, the children learn of other distinctive methods of logging which are directly related to the local natural environment. At times of high water, negroes go in canoes into

some of the swamps to "pole out" the cypress logs felled during the dry season, guiding them along cleared lanes or canals to the places where they are collected for shipment. Thus, while certain general relationships of logging are applicable in each of these regions and in others, the children are led, through the comparison of methods in various logging localities and the explanation of the differences discovered, to sense new relationships between logging methods and natural environment.

2. The second objective in the teaching of elementary geography is to give the pupil a knowledge of the location and character of the leading surface features of the earth (continents, oceans, mountains, plains, rivers, lakes, cities, etc.) *in their various relationships to human activity*, but never as isolated facts. In connection with this objective, it is to be noted that since geography is concerned with relationships between man and nature in specific places, it affords a greater opportunity than does any other subject taught in the elementary school to fix in the minds of pupils the names and locations of important surface features. It is again stoutly affirmed, however, that it is only the relationships which exist between the distribution, activities, life, and works of man, on the one hand, and earth features, on the other, that have real geographical quality. It is through these relationships, and only so, that geography should teach facts of location. In order to make essential locational facts permanent possessions of the children by the end of the elementary course, it is necessary for the children to make *repeated motivated use of them.* Everyone would agree, doubtless, that before the end of the work on the United States the children should know the names and positions of the states of the Union. But it is greatly to be deplored that there are still many teachers who require their pupils to memorize these facts merely for their own sake. The children can be asked, by way of check exercises at appropriate intervals in the progress of the work, to list the Great Plains states, for example, in the order in which sheep-shearing takes place in them, in the order of corn-planting time, in the order of wheat-harvesting time, and in other ways in which association will aid the memory.

3. The third objective in the teaching of geography in the grades is to give a sympathetic understanding (of necessity, elementary) of

the conditions and problems of the peoples of other countries which are associated with, and grow out of, the kinds of lands in which they dwell; to help the pupil to get the point of view of foreign peoples. Certainly, to view the lives of nations and of communities in relation to their environments provides one indispensable prerequisite to understanding their problems and their attitudes and so helps to pave the way for intelligent sympathy and for effective co-operation.

The most elementary study of the geography of Great Britain discloses its dependence for food on other lands. This, in turn, helps to explain why Britannia rules the seas and also the attitude of Englishmen toward maintaining the integrity of their far-flung empire. To see teeming millions of Japanese intensively farming tiny plots of land cannot fail to throw light upon Japan's attitude toward the exclusion of its nationals from certain other lands.

4. The fourth objective is to show the dependence of man on earth conditions and earth resources as the material bases of social development and to bring out the economic interdependence of the peoples of different countries. Just as an inhabitant of a crowded city cannot live without any relation to his fellow-citizens, so no nation will in the future be able to avoid close association with its neighbors in a world which is fast approaching a crowded state. The pupil should come to realize that, through improved means of transportation and communication, the environment affecting each group of civilized people has come to embrace practically the entire earth. An appreciation of the interdependence of men and of the unity of the earth will help the pupil to become an intelligent citizen of the world. Some simpler aspects of the interdependence of groups of people may be appropriately emphasized here and there throughout the earlier part of the work in geography. Significant in themselves, these instances also pave the way for an understanding, at a later stage, of the more complex geographical aspects of the interdependence of the people of different regions and of different countries. The mutual dependence in parts of the West of grazing in mountain pastures and the growing of alfalfa in irrigated valleys may illustrate the simpler relations in question.

5. The fifth great objective is to point the way to better uses of land and of natural resources. It would be difficult to exaggerate the

importance of teaching to the young citizens of America fundamental conceptions about the right use of the land. Millions of acres in the eastern half of the United States, once productive, now constitute an economic desert. This desert cannot be permitted to grow if we are long to maintain our present high standard of living and of material well-being. Indeed this desert must be reclaimed, so far as practicable, if the country is to support in any acceptable way its fast-mounting population. "We have gone through the country like a horde of grasshoppers, chewing out the best in the land and moving on complacently to new fields." We are only beginning to see the importance of adjusting our activities to the land *harmoniously* and not with a view merely to immediate profit. It is by the children now in our schools that many of these problems which are beginning to press upon the nation will be solved, either wisely or unwisely. An intelligent interest in governmental and social obligations toward the efficient use of natural resources is an important prerequisite to good citizenship. Even fifth-grade children readily sense, for example, the evils of "mining timber" on steep mountain slopes and the value of maintaining protective forests there, and so recognize the importance of our system of national forests.

Secondary objectives.—The attainment of the foregoing primary objectives in the ways suggested will realize as by-products several secondary objectives, the more important of which may be stated briefly as follows:

1. The laying of a sound foundation for related work at higher levels. The work in geography (as in other subjects) done in the university, college, high school, and elementary school must be regarded as a single great unit in order that educational waste may be eliminated, time be conserved, and the work of different stages in the school system be properly correlated.

2. The promotion of exact thinking by stressing causal relations, by closely linking causes and consequences (so far as the age and the mental equipment of the pupils warrant).

3. The giving of a working knowledge as to how to secure geographical information through the interpretation of maps, of pictures, and of museum, out-door, and graphic materials.

4. The provision of training in the efficient use of books, indexes, statistical tables, references, and the like.

5. The provision of training in right methods of study leading to thorough assimilation.

6. The cultivation of an interest in present-day affairs that will make for wider reading in leisure hours, during and after the study of geography in school. As a result of his study of geography, the pupil should be able throughout his later life to put into their regional settings many current events, much that he reads or that he sees in travel, and many problems of business.

7. The development of the habit of applying geographical principles, whenever practicable, in the interpretation of current events.

The realization of objectives.—Some of the twelve objectives that have been indicated are the distinctive contributions which geography may make toward the effective training of young people for their life-work and for intelligent participation in the affairs of society. Others are objectives to which geography can contribute in common with other studies. Some of these objectives should be realized in considerable measure early in the work in geography. Others relate chiefly to the later stages. The work at all levels should contribute in a properly graded and sequential manner to the realization of most of them. Some of them, in greater detail and in a more comprehensive form, should be among the objectives of geography-teaching in the high school and in college.

It remains to discuss briefly the organization of a course in geography for elementary schools which, as a whole, will meet these objectives.

Determining the earlier units in a course of study.—It has become a rather firmly established custom to begin the course in geography with so-called "home geography." In the light of the previous discussion, it is apparent that much so-called home geography is not geography at all. Some of it is abstract physiography, involving the study of land forms and of the work of water. Some of it is nature-study, dealing with weather and with native plants and animals. Other phases of it include accounts of the history of the home town, county, or state; an outline of local government and of the duties of civic employees, such as firemen, policemen, garbage gatherers, and health inspectors; and the mere naming and mapping of streets and buildings in the neighborhood. Very little of it deals with relationships between the major human activities of the

locality and the local natural environment. However important it may be for the child to have at an early stage certain fundamental concepts of community life, the giving of such as those mentioned is not a function of geography.

The remedy which may naturally suggest itself at once is to teach instead the *real* geography of the home locality, but, on further consideration, in the light of the foregoing discussion, it is apparent that this, too, is unwise. The relationships involved in such a study are, for the most part, so complex as to be wholly unsuited for an initial unit. At that juncture the children have not the requisite background for understanding them. The real geographical relationships which children can understand readily at the outset of their study of geography are those between clothing, food, shelter, ways of traveling, and certain kinds of work and play, on the one hand, and the kind of country in which they are found, on the other hand. The next remedy which suggests itself is to confine beginning geography to the study of such relationships concerning the child's own food, clothing, shelter, and the like. There are two good reasons for *not* so doing. In the first place, even the relationships to natural environment of food, clothing, and shelter should first be studied in connection with regions where they are simple and direct. In localities of the United States, they are for the most part involved and indirect. An even more potent objection is that a child raises *for himself* practically no questions about his relations to his home environment, and naturally so. He takes it all as a matter of course. He accepts the familiar as the universal. It stirs no thrill of alert expectancy in him to learn that he will study what he feels he knows already. From hundreds of children who, in experimental work, were given an opportunity to choose whether they would study first their home region or some remote land, not a single vote was obtained for the home region. This reaction has a sound psychological basis—no one wants reiterated what he thinks he knows; he can have no natural curiosity about it. He wants to go ahead, to build on what he has, to learn things he does not know, to follow the lure of the new and unexplored.

To this statement it may be objected that units have been worked out about the children's own food, clothing, and shelter

which, though not interesting to the children at the outset, soon become of much interest to them. If one examines carefully, however, into the reason for the later interest, one finds that it is due largely to the fact that the tracing of their food to its sources took the children at once to regions *away from their home* and that it was accordingly the element of the distant region which, after all, allured, and not that of the home region.

In the light of such experience, then, why not go at once to distant regions, in accordance with the child's desire? It may be objected that this is proceeding from the unknown to the known, thus violating a time-honored educational principle. Such a reaction would be the result of superficial analysis. The moment that a child is confronted with the fact that natives in a foreign land work, and play, and live in ways that differ from those to which he is accustomed, he wants to know why they do things strangely. The differences which he at once discovers are "disconcerting data," which, as psychology points out, are the chief sources of purposeful thought activity on the part of the child. They disconcert, and so prompt questions, just because they are at variance with the child's unconscious assumption that the familiar is the universal. It is a fallacy, then, to assume that the child is not starting with the familiar when he is asked to find ways in which men's ways of living in a distant land differ from the ways of living in his home region, for in such comparisons he is employing the familiar in a natural and effective way, and in one which interests him much more than any discussion of the things he thinks he knows already could possibly do.

In choosing the particular units to use in introducing children to simple geographical relationships, some guiding principles should be kept carefully in mind. In some regions, notably those of relatively primitive culture, these relationships are simple, direct, and striking. In others, as noted in the case of the United States, they are complex and involved. As already indicated, regions should be chosen which are rich in simple, clear relationships. Japan, often considered in third- or fourth-grade units, is unwisely chosen for these grades because many of the relationships between Japanese food, clothing, shelter, and the natural environment are obscure, indirect, and understandable only in terms of more mature analysis. It is a

common mistake of teachers to assume that they are teaching geographical facts about Japan when they teach, for example, how Japanese children dress and what games they play. Such facts interest children, of course, but they are not geography unless relationship is shown between them and the natural environment. In some tropical and desert regions, on the other hand, there are direct and simple relationships between dress and environment.

Second, units should be chosen which, taken together, will give, when properly treated, a clear general "working" concept of the world as a whole. A "working" idea is one applicable to many situations which the child will meet later. A "working" idea of the world as a whole involves an understanding of relationship between men's activities and the distance of their homes from the equator, together with the ability to apply this idea in simple interpretations of regions later studied. It is a fallacy to assume that in order to develop such a concept regions from each continent must be chosen. Although this purpose has been achieved *in some measure* in various schemes by the use of *widely scattered, miscellaneous groups of people*, such as Eskimos, Indians of our Southwest, South Sea Islanders, and Amazon rubber gatherers, it can be realized much more effectively through the detailed study of a group of selected *contiguous* regions, which group as a whole extends from low to high latitudes. Moreover, such study should proceed from one region to another within the group *in such sequence* that the child is led to understand the more important transitions that take place as one goes from low to high or from high to low latitudes. Such a procedure is the more desirable in that it lends itself admirably to a carefully graded developmental scheme of training in elementary map interpretation.

The problem of the choice of introductory units, then, involves the selection of regions (1) which are rich in simple, easily discernible geographical relationships, (2) which are contiguous, and (3) which, taken together, extend from the equator to the pole.

Presenting units in a course of study.—Of course, even well-selected units can be so presented as not to achieve the ends desired. In the expansion of all units selected for an elementary course of study, at least the following principles of presentation should be observed:

1. Present concrete, specific, and, so far as practicable, colorful facts, reasonably easy for the child to comprehend. Use pictures which have real geographical value, as one would use views in the field itself, in giving concrete concepts of regions.

2. Generalize only when the child has sufficient concrete background to sense the generalization himself.

3. Introduce geographical terms and map symbols only when needed and never before the underlying concepts are entirely clear.

4. By means of varied exercises, set up definite goals for the pupil to reach through the study of text, maps, and pictures, used singly or in combination.

5. Do *not* follow a set and invariable outline of topics. Make the organization elastic. The central theme of each unit should be those geographical relationships which are distinctive in the region under discussion and which at the same time are suited to the interests and abilities of the pupils.

6. Provide means by which the pupils can check their own conclusions.

7. Accomplish review by the application of familiar principles to new situations and by the liberal use of drill devices on the play level.

The place of Anglo-America in the course.—After an introduction to the subject which embodies the foregoing principles of selection and presentation, the children are ready first to study their homeland and then to proceed, continent by continent, to the study of regions which they have not yet "visited." *At this juncture the child does have questions of his own about why we do as we do,* for he has discovered that there is no universal way of living—that, on the contrary, ways of living differ greatly from place to place. With such a background, he has an interest which is perfectly natural, and which is his own, in the "why" of the ways of living with which he is most familiar. Without such a basis, all such questions must originate with the teacher, and the child answers them with little or no enthusiasm. At least a year should be spent in the study of the various regions of the United States, together with a brief study, much of it in the nature of a "carry-over," of Canada.

The "one-cycle" scheme.—It is by this time evident that the

scheme here advocated is "a one-cycle treatment." The advantages of such a treatment seem, in the light of the foregoing discussion, so obvious as to need scarcely more than mere mention. One of the greater causes for waste of time in work in elementary geography is that most courses of study, in keeping with the organization common in textbooks, provide for covering the world twice *in substantially the same way*. The one-cycle plan is in accordance with a widespread demand for the elimination of waste in education. Perhaps even more harmful than the waste resulting from duplication is the condensation necessitated by the small amount of time that can be devoted to each unit in a repetitious two-cycle course. For example, to each of *two* similar Asia units in such a course it is practicable to allot only half as much time as can be given to the *single* Asia unit in a one-cycle course. Suppose that in the one-cycle course a period of six months is assigned to the study of a given region. In a two-cycle course of similar duration, the "first-cycle" unit dealing with the facts concerning this region can be given at best not more than three months. The crowding of the first survey of these facts into three months makes for compactness and nudity of statement which render the material unattractive to the child and difficult or impossible for him really to assimilate. A later three-month period devoted, for the most part, to the same densely stated facts does not serve to remove his dislike for them nor to insure his mastery of them. The very brevity of each unit tends to be deadening. Such condensation has resulted, in almost all cases, in the reduction of the material presented to a "foolish catalogue of things and places."

The giving of concrete details, which are absolutely essential to good elementary geography teaching, is time consuming. By treating a region once only, instead of twice *in much the same way* (as is common in texts and courses of study, notwithstanding assertions to the contrary), time is gained for a richer and more extended presentation of material than would otherwise be possible. The very richness and concreteness thus permitted facilitate thorough assimilation to such a degree that a more lasting impression is given the child by the single treatment than possibly could be given him in several repetitions of abstract, condensed material. Moreover,

by the cumulative "carry-over," from regions already studied to new regions, of relevant principles and facts which the children have *mastered*, reviews can be made, through application and comparison, which are far more effective than those accomplished by studying the same regions twice in similar ways.

The statement sometimes made to the effect that a two-cycle treatment is necessitated by the inability of fourth- and fifth-grade children to reason does not deserve serious consideration, for all educators who have worked with children at those levels know that it is fallacious. What the children often have lacked has been geographical material suited to their comprehension, worth thinking about, and presented in a way that would induce thinking.

Even more time than is made available by a one-cycle treatment should be gained for those regions which are of relatively large significance to young citizens of America by subordinating appropriately those of lesser import. The course of study, then, not only should be organized on a one-cycle plan but should vary, in so far as is practicable, the time devoted to selected regions in proportion to their social significance.

Determining the order of later units.—In determining the order of units to follow the study of the United States, two major criteria should be employed. One is the relative difficulty of the geographical relationships which are distinctive in the regions under consideration; the other is the comparative social significance of the regions. Other things being equal, the less the difficulty and the greater the social significance of a given unit, the earlier should be its place in the geography curriculum. Balancing these major considerations and others which are minor, the order here recommended is the study of Eurasia after that of the United States and Canada, to be followed, in turn, by treatments of Latin America, Africa, and Australia.

The course summarized.—The elementary course which seems to lend itself best to the attainment of the objectives enumerated consists of a study of (1) a few representative peoples in selected environments, the material so organized as to develop a working concept of the world as a whole, (2) the United States and Canada,

(3) Eurasia, (4) Latin America, (5) Africa, and (6) Australia, with a high degree of correlation between time allotments for the regions treated and their relative importance to citizens of this country.

After a survey of the *regions* of the world, such as that just outlined, children should be ready for a series of *world-views*, which may be continued in the junior and senior high schools. It is appropriate, it would seem, that the first of these should be a geographical study of the United States *in its world relations, both commercial and political. Such a unit in no wise repeats the earlier regional study of the country*, for that study relates only to work, play, and ways of living *within* the regions treated and to significant geographical relations between them, while the world-view advocated would deal wholly with *external* geographical relations of the country. This unit concludes a course which, it is believed, will meet, if properly presented, the ends that geography seeks to attain at the earlier levels. Such a course not only will lay an effective basis for later high-school and college work in geography but will provide a minimum background, in so far as the contribution of geography is concerned, for intelligent participation in society.

IDEALS, SITUATIONS, AND TRAIT ACTIONS. II[1]

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Trait actions.—After an ideal has been accepted by an individual, it is necessary for him to work out the line of action which must be followed if the ideal is to be used in a given situation. These lines of action are called trait actions. As the term indicates, they are the actions which express traits in situations.

Trait actions are worked out on two levels, the level of planning and the level of practice. That is to say, when we are confronted by a situation, we have to decide what to do, and then we must do it.

Trait-action plans.—The plans for trait actions may be thought out by the individual, or they may be accepted from other sources. The fact that controls have been worked out in connection with specific situations has led to a variety of statements of plans of action. For instance, the race has worked out a great mass of rules and proverbs which involve plans of action of a general sort; their weakness lies in the fact that they are not applied to specific situations and do not give detailed directions; they do, however, serve as reminders of principles of action to be applied by the individual in particular cases. Sometimes trait-action plans are stated in the form of literal rules. Franklin, for example, in listing twelve ideals in his autobiography gives the plans of action for eleven of them. For instance, to attain to temperance, he advises, "Eat not to dullness; drink not to elevation." To achieve resolution, he says, "Resolve to perform what you ought; perform without fail what you resolve." Sometimes plans of action are developed in symbolic form. Foresight is attained if we remember that " a stitch in time saves nine." Persistence may be attained by heeding the warning of the proverb, "Constant dropping wears away the stone." Tact is brought to our

[1] This is the fourth and the last of a series of articles dealing with the content of the curriculum. The articles are excerpts from a book which is to be published on "The Teaching of Ideals."

attention by this simile, "A word fitly spoken is like apples of gold in pitchers of silver." The literature of a nation is filled with the artistic distillation of the wise trait actions of the ages. Literary form and epigrammatic piquancy cause rules of action to be retained in memory against the time of use.

It should be noted that proverbs and rules are stated so generally that they can be applied to conduct only through specific situations. For instance, a child may be able to repeat the proverb, "A stitch in time saves nine"; he will, however, be able to use it only when he applies it to a specific situation, such as mending a tear in a dress or a hole in the stocking or paying his bills and avoiding quarrels with his friends. A proverb stated in abstract terms, therefore, means nothing unless applications to specific situations are made.

Negative statements.—Plans of action are frequently stated in negative form. We are told what *not* to do as well as what to do. A few illustrations will make this clear. "If sinners entice thee, sin thou not!" "A man that flattereth his neighbor, spreadeth a net for his feet." "The kisses of an enemy are deceitful." "Beware the Greeks bearing gifts." Such negative statements have their place in the building of ideals. They are frequently more forceful than positive statements. "Thou shalt not steal" is more effective than "Thou shalt be honest." This effectiveness is due to the fact that in many cases there is no positive term which is the exact opposite of the negative term. We know exactly what stealing means, and when prohibition is set against it, we know what we must not do, and in many cases that is sufficient. The race has picked out many defects and given them names without selecting names for their opposites. It is entirely permissible and desirable, therefore, to include prohibitions in any curriculum which is planned for children. The belief that we must tell children what to do rather than what not to do is erroneous as a single method of teaching. There are times when the best way to teach a child to apply an ideal is frankly to tell him what not to do, but ordinarily negative statements must be followed by definite plans of action. When we say, "Do not be discourteous," we present no positive plan of action. The situation is greatly improved if we show the child how to be courteous. Then, courteous action will naturally follow. He who is not discourteous may not be courte-

ous; he may be neutral. We cannot be sure that a man who is not discourteous will perform courteous actions. The decision not to be discourteous involves the things one should not do, while the decision to be courteous prompts the performance of courteous actions. In one case, action is inhibited; in the other, action is stimulated. Yet, as has just been said, there are situations in which prohibition is significant.

Literature and history.—Plans of action are also found in literature and history. Poetry abounds with passages that are easily remembered and prove themselves of greater force than rules. They paint a picture of the high ideal to be won or the low ideal to be shunned. A mere statement of rule might be given in abstract form, such as the two words, "Be patient," but the three following excerpts are much more effective than the bare statement of the rule:

Antonio: I did oppose
My patience to his fury, and am arm'd
To suffer, with a quietness of spirit,
The very tyranny and rage of his.

Iago: How poor are they that have not patience!
What wound did ever heal but by degrees?

Pericles: Like patience gazing on kings' graves and smiling
Extremity out of act.

Poetry and prose abound with incidents which embody plans of action. Ten minutes spent in skimming a basic reader or any volume of the classics will yield a hundred illustrations. Histories are full of incidents in which men confronted by situations performed actions embodying plans which dominated their lives. Indeed, from the point of view of the use of literature and history, we find a storehouse of ideals and methods used in achieving these ideals. So great is the influence of the literature of a nation on its youth that the pupil who reads widely and intelligently is unable to escape from the domination of the literary past.

Current incidents.—Not only do rules and proverbs and literature and history provide us with plans for action. Current incidents are extremely valuable and widely used. A boy may feel that Washington and Lincoln were able to do what they did because they were great and that he cannot hope to accomplish much because he is

merely an ordinary boy. Quite different is his feeling when he hears the story of a boy of his own age, in his own town, with abilities no greater than his, who has won reward by following an ideal or reaped disaster because he failed to observe it. The statement that the children in the neighboring school have the neatest building in the city because they did thus and so makes an appealing text for neatness in another school. That one girl saved all of her pocket money to give food to the children of Russia is a stimulant to action for another girl. That the boys of the next block threw stones at a policeman and were haled before the judge acts as a deterrent to the boys of the neighborhood. The memory of the pain that came from insubordination yesterday tends to develop obedience today. A personal parallel is a powerful force in giving credence to an ideal and in shaping convictions about plans of action. The closer the personal incident parallels the experience of the individual, the greater is its force as a stimulant or a deterrent.

Vocabulary.—Particularly important is vocabulary as an embodiment of plans for action. When the boy who is gazing at the oranges in the grocer's crate reaches out his hand for them, the injunctions contained in the word "stealing" may be a sufficient deterrent and may inhibit his action. Stealing is something that is not done. The girl who is about to lose her temper in an altercation may change the tone of her manner as she remembers the word "politeness." Critical gossip may suddenly cease when some thoughtful member of the group says, "Kitty, Kitty."

Yocum has analyzed the use of words as an aid in the control of ideals. He points out (in mimeographed form) the fact that tied up with words are experiences and habits of action which tend to come to mind when the words recur. Speaking of the ideal of love in connection with religious education, he says:

> The *vocabulary* of love is far more controlling than most of us realize. . . . . Social workers bear testimony to the fact that until evil men and unfortunate women have been taught *good* words to *recall* experiences which otherwise are recalled only by vulgar and obscene words, conversation about right conduct is impossible. . . . . Pupils may not be so drilled in *assembling* under the general word "love" and under such characteristics of love as sympathy and sacrifice *all* of the loving words they should suggest, which should suggest them; or they may fail to *memorize* under love and to be *given practice* in suggestively using such

word suggesters as loving words about serve, about sympathy in success and in sorrow, etc., or the multitude of words which recall loving experiences may not by frequent use have been located in home, in school, in foreign missions, in war, in failure, in work, and in leisure—in short, in the times, the places, and the experiences in which they can be most helpful. It is an art in itself to assemble about a virtue like *love all* the *words* which will make it completely controlling through vocabulary. Yet *vocabulary control* of conduct becomes more and more important in Christian teaching, as the great multiplication of miscellaneous experience for the ordinary individual, through the moving pictures, the phonograph, and the automobile, makes it imperative that *experience* shall become morally and religiously *selective* because instruction insures *enough right words* through which to *recall* it. The church must reverse Billy Sunday's putting of religious experience into ordinary vocabulary and instead *give ordinary experience* the *religious* vocabulary necessary to control *it*.

The fine arts.—Not only is vocabulary of use in the development and control of ideals, but, as Bagley points out, ideals are crystallized in the form of art—in painting, music, sculpture, and architecture. He says:

> The use of these materials in formal education, however, has hitherto been limited largely to the study of pictures, and this has been prosecuted in a way that is generally far from satisfactory or effective. It is possible that a method may be devised through which the inspirational value that pictures possess can be realized in the schoolroom. Certainly one of the first steps toward the devising of such a method will be a selection of the pictures that embody ideals appealing to children. Under present conditions, the function of pictorial art in elementary education is largely limited to the intangible and rather uncertain effect which the presence of good pictures in one's environment has upon the development of that quality which we term "good taste."[1]

We have seen that plans of action may be found in rules and proverbs, literature and history, personal incidents, vocabulary, and art and that from these sources a wealth of material can be drawn; but the statement must be reiterated that when we want these plans of action to influence conduct, they must be translated into the specific situations which confront the child. Rules and proverbs are general in their application; incidents in literature and history are situations which the child in the schoolroom may not meet. Also, the pupil must, with or without the aid of the teacher, apply the principle of action, the incident, the rule, or the proverb to the

[1] William Chandler Bagley, *Educational Values*, p. 171. New York: Macmillan Co., 1911.

specific situation with which he is confronted. Otherwise, there is a complete lack of contact between the principle and behavior. To illustrate what a group of teachers may do in working out these trait actions for specific situations, the following courteous trait actions prepared by a group of Pittsburgh teachers are presented. The committee collected material from various sources through interviews and conferences.

COURTEOUS TRAIT ACTIONS

I. At school
  1. On entering
    a) Come into the building on time and in an orderly manner
    b) Remove hat
    c) Allow girls, elders, etc., to pass through door first
    d) Open doors for teachers or guests
    e) Close doors noiselessly
    f) Use proper forms of greeting
  2. In the classroom
    a) Act in such a way as not to interfere with the rights of other people
    b) Excuse yourself or ask pardon
    c) Say "Please" and "Thank you"
    d) Address elders correctly and respectfully
    e) Pass materials politely, passing pointed articles with the points turned
    f) Exercise courtesy in folding paper, handling rulers, pencils, etc.
    g) Pick up articles that have been dropped
    h) Use a gentle, courteous tone of voice
    i) Respect other people's property (wraps, books, pencils, rulers)
    j) Ask and answer questions politely
    k) State criticisms courteously
    l) Maintain a correct posture while standing or seated
    m) Exercise thoughtfulness toward
      (1) Weaker and less popular children
      (2) Foreigners
      (3) Visitors
    n) Assist other pupils with wraps
  3. On the playground
    a) Behave well at drinking fountains
    b) Play cheerfully and unselfishly
    c) Settle disputes courteously
    d) In competitive games, show consideration for your opponents by being a gracious winner or a good loser
  4. On the street going to and from school
    a) Behave quietly and maintain orderly conduct

b) Use proper forms of greeting
(1) Raise your hat
(2) Avoid discourteous calling from distances
c) Observe traffic laws
(1) Keep to the left when passing people going in the same direction
(2) Keep to the right when meeting people
(3) Cross streets at the regular crossings
d) Maintain a respectful attitude toward
(1) Pedestrians
(2) Drivers
(3) Property owners
(4) Aged and infirm
e) Avoid obstruction of sidewalks and standing on street corners
f) Direct people courteously

II. At home
1. Parents
a) Offer to help them
b) Tell them of your interests
c) Show appreciation for what they do for you
d) Tell them that you love them
e) Tell them where you are going and when you expect to return
f) Provide for their entertainment
g) Take them for walks or rides
h) Wait on them instead of letting them wait on you
i) Give them gifts before you give them to other people
j) Come and leave graciously
k) Introduce your friends to them
l) Lift your hat to them
m) Assist them up and down the steps
n) Unlock the door for your mother
o) Allow her to go into the house or up the stairs first
p) Never contradict nor interrupt
q) Speak respectfully of them
r) Obey willingly and cheerfully
s) Speak in respectful tones
2. Brothers and sisters
a) Help with work
b) Run errands
c) Escort your sisters
d) Carry packages
e) Avoid unnecessary disorder
f) Be interested in one another's friends
g) Respect letters and other private property
h) Do not be curious

i) Cultivate respect and consideration
j) Do not expect them to do what you can do for yourself
k) Use polite language with one another
l) Be unselfish
m) Help with wraps

3. Visitors
   a) Greet them cordially
   b) Provide for their entertainment and comfort
4. Servants
   a) State requests politely
   b) Show appreciation for services
   c) Be considerate in demands

III. At another's home
1. On entering
   a) Clean shoes
   b) Care for your umbrella
2. In greetings and farewells
   a) In introducing
      (1) Enunciate names distinctly
      (2) Accept the introduction gracefully
   b) Observe proper forms in handshaking, bowing, etc.
   c) Express appreciation of pleasures
3. Making one's self agreeable
   a) Be interested in the people
   b) Be attentive to any form of entertainment—conversation, music, reading, or game
   c) Contribute your share
   d) Sit still; do not fidget
   e) Do not monopolize conversation or time
   f) Do not contradict, interrupt, or be argumentative
   g) Do not stare, whisper, or laugh loudly
   h) Avoid personalities

IV. At church
1. Enter punctually and noiselessly
2. Remove wraps quietly
3. Be reverent
4. Avoid whispering, laughing, gazing about, and making remarks
5. Join in the general form of worship
6. Speak cordially when leaving
7. Inquire about sick or absent
8. Be friendly and hospitable

V. At entertainments
1. Enter punctually and quietly
2. Follow lady, who is preceded by an usher
3. Thank the usher

4. Refrain from gazing about
5. Talk only in a low tone
6. Handle your program quietly
7. Applaud respectfully
8. Refrain from hissing, jeering, and calling
9. Avoid pushing and elbowing when leaving

VI. Anywhere
1. Discourteous actions
a) Whispering in company
b) Reading in company
c) Chewing and smoking in company
d) Sneering, ridiculing, and laughing at others
e) Using handkerchief noisily
f) Gossiping
g) Telling vulgar stories
h) Reading over another person's shoulder
i) Snatching things
j) Returning borrowed things without thanks
k) Laughing loudly or vulgarly
l) Taking souvenirs from hotels, etc.
2. Courteous actions
a) At telephone
(1) Use pleasing tone of voice
(2) Do not monopolize time
(3) Say "Thank you" to operator
(4) Be reasonable
b) In elevator
(1) Obey instructions
(*a*) Move to rear
(*b*) Face the door
(2) Remove hat in presence of ladies

VII. Traveling
1. Observe the rights of others
a) Wait your turn at the ticket office
b) Board and leave trains and street-cars slowly
c) Occupy no more than your share of the seat
d) Dispose of wraps so as not to inconvenience other people
e) Refrain from opening windows if it is displeasing to other people
f) Give your seat to elders
g) Talk in low tones
h) Be courteous to officials and passengers

VIII. Patriotic courtesies
1. To the flag
a) Raise
b) Lower

c) Salute
d) Give precedence
2. To anthems or songs
a) Rise when singing
b) Avoid putting on wraps while singing

When a trait action is given, the degree of detail with which it is analyzed depends on the maturity of the student. For example, when we say that a student should come into the building in an orderly manner, this injunction will be sufficient for a college student or a high-school student but will be inadequate for a first-grade child. In the latter case we need to analyze "orderly" into the actions which the child must actually perform. Specifically, we might say, "You must not run. You must not shout. You must not push other pupils." In brief, trait actions must be described in terms of working units which the child can assimilate. The weakness of those of us who teach is due to the fact that we do not analyze with sufficient definiteness.

When we scan the list of trait actions with this principle in mind, we see that in many cases it will be necessary for the curriculum-builder or the teacher to analyze the various trait actions included. A simple rule to follow in determining how far to analyze the trait actions is this: Read the trait action and ask the question, "How is this done?" If you feel that your pupils will know how to do it, then it is unnecessary to make further analysis. Let us illustrate this in two or three cases. The first trait action in the list is this, "Come into the building on time and in an orderly manner." The teacher then asks the question, "How do you do this?" If she feels that her children know how to enter the school in an orderly manner, further analysis is unnecessary. The second trait action is, "Remove hat." If, in response to the inquiry, "How?" the teacher feels that the children do not know how to remove their hats properly, the analysis must be carried farther. If, on the other hand, the teacher thinks that the answer to the question, "How do you do this?" is known to the pupils, further analysis is not necessary. This simple device should be followed in connection with all trait actions which are presented in any curriculum in order to determine the amount of analysis and instruction necessary.

Groups of teachers in other school systems will very likely find that this list needs to be modified if it is to meet the situations in their schools and the trait actions which are acceptable in their communities.

Another illustration of a slightly different sort may be presented. This is a list of trait habits for the primary grades prepared by Agnes L. Rogers.[1] Obviously, trait habits are trait actions, and Miss Rogers considers these to be of so much importance that they should be developed to the point where they become habits. It would be of particular value to the reader to ask in connection with each of these trait habits, "How are these to be performed?" He will then know, in the case of his particular group of children, whether or not it will be necessary to analyze the habits in greater detail in order that they may be put into operation.

Summary.—When ideals are applied to conduct, the application occurs in specific situations. These situations must be listed, and appropriate trait actions must be determined. These are matters which lie within the ability of any group of teachers. When the curriculum has been determined, it becomes necessary to put it into practice. In order that the application of the ideals may be complete, it is necessary to generalize them so that the pupil may learn the technique of applying them to new situations.

[1] Agnes L. Rogers, *A Tentative Inventory of Habits.* Teachers College Bulletin, Fourteenth Series, No. 4. New York: Teachers College, Columbia University, 1922.

THE VALUE OF A TIME ANALYSIS OF CLASSROOM ACTIVITY AS A SUPERVISORY TECHNIQUE

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The problem of making supervision objective rather than subjective is being attacked vigorously in many places. One of the most hopeful signs is the increased use that is being made of self-supervisory devices, by which the teacher herself evaluates objectively the work done in her own classes.

One device that is used extensively is the standardized test, by means of which a teacher can readily evaluate her work in teaching certain of the basic skills, such as those in arithmetic, spelling, and reading. The results of standardized tests are also helpful to general administrative and supervisory officers, since they reveal weak or strong points and thus make it possible to give special attention where pronounced weaknesses are found. The objective measurement of classroom products is absolutely essential in any intelligent evaluation of the results of teaching.

Another technique is the evaluation of class work by means of a careful analysis of the activities of both pupils and teachers. The pioneer studies in this field were the investigation by Miss Romiett Stevens of the relation between the number of questions asked and the efficiency of the recitation and the study by Ernest Horn of the variation in pupil participation in class work. Their techniques are being elaborated and expanded and are used by many competent supervisors. The method by which pupil and teacher activities are analyzed is valuable, since an analysis of modern educational philosophy shows that stress is placed on the vital importance of well-motivated pupil activity in the learning process.

In the Minneapolis schools, a supervisory technique is being developed which is objective and which aids the teacher to analyze critically the methods she is using in teaching. This method may be called a time-activity analysis. It involves a study of the various

types of activity that can take place during a lesson in a certain subject and of the amount of time devoted to each type of work. A self-diagnostic sheet for a given subject is discussed by the principal with the teacher and its purpose explained.

In the sheet used in analyzing the activities in reading in the primary grades provision is made for fourteen general types of work, and space is left for any others that may take place. The list of activities is based on a study of the reading work usually done in the primary grades. In the vertical columns provided for the days of the school week the teacher records the amount of time spent each day on each type of activity. In the last vertical column the teacher places the total amount of time devoted to each activity during the week. At the foot of the table the teacher records the total amount of time for each day. This serves as a check on her daily apportionment of time.

At present it is not known just how much time should be given to each of the activities during the week. A principal may see excellent work of one type being done by a teacher. Under usual conditions, the principal is not able to spend an adequate amount of time with a teacher on several succeeding days to evaluate the work done each day. An objective time analysis such as is afforded by the method here suggested enables a principal to study the class work for a period of time from one point of view. This analysis makes it possible to discuss with a teacher the record of work which she has kept herself and raises it above the plane of possible personal bias. Comparisons of the time records of different teachers can be made and discussed at teachers' meetings with most beneficial results. General policies regarding the nature of instruction can be determined. Time analyses of the methods used by the teachers who are securing the best results may suggest changes that can be made where the results are apparently not as satisfactory.

A concrete demonstration of the value of this work is revealed by the data in Table I, which is a summary of the average results found in a time-activity analysis of reading made by the teachers in Grades I to IV in seven Minneapolis schools for one week.

The results of this study raised numerous questions in the minds of the teachers who participated. How much time should be given

to phonetics? How much time should be given to oral reading grade by grade? Should all of these activities be engaged in each week? Is enough time given to tests and remedial work? Should there be more dramatization?

An analysis of Table I shows clearly that there was a tendency to reduce the amount of time given to phonetics from grade to grade. The amount of time devoted to oral reading and to undirected free

TABLE I

AVERAGE NUMBER OF MINUTES A WEEK DEVOTED TO VARIOUS READING ACTIVITIES IN GRADES I TO IV IN SEVEN MINNEAPOLIS SCHOOLS

TYPE OF ACTIVITY	GRADE			
	I	II	III	IV
1. Pure phonetic drill to develop independence in word recognition	63	62	19	2
2. Word drills connected with daily reading work for meaning and pronunciation	34	51	30	30
3. Oral reading: books, blackboards, cards, etc.	112	45	43	34
4. Flash-card drills to develop silent-reading ability	28	6	17	32
5. Directed silent reading	62	118	83	109
6. Combination of oral and silent reading	20	35	32	24
7. Undirected free silent reading	66	58	41	10
8. Illustration and handwork	69	32	27	13
9. Dramatization	16	12	26	18
10. Oral language based on reading lesson during reading period	40	10	22	23
11. Written language work based on reading lesson during reading period	0	15	56	10
12. Use of arithmetic, geography, etc., material during reading period	12	0	1	16
13. Attention to needs of individual pupils	35	36	45	21
14. Tests, formal and informal	15	5	12	8
15. Other				
Total	572	485	454	350

silent reading was also reduced. There was an apparent increase in the amount of time given to directed silent reading, although there was a marked decrease in the total amount of time given to reading in each succeeding grade. Very little use was made of reading as a basis for either oral or written language work. There was an apparent effort to give attention to the needs of individual pupils. The record for the first grade probably does not reveal the true amount of time devoted to this work, since in this grade much attention is

given to the backward pupils, who are placed in groups for special work rather than handled as individual problems. Only a very small proportion of time was given to tests, either of the formal standardized type or of the informal teacher-constructed type.

An especially interesting fact revealed by Table I is the small amount of time that was being devoted to flash-card drills. At that time the Minneapolis schools were making very little use of the formal standardized flash-card materials which are now being widely used. A direct result of the data secured regarding the use of flash cards has been the definite attempt of the school authorities to provide more of this valuable type of work.

Probably the chief value of this investigation of reading was the analysis of their work which the teachers were required to make. It caused some teachers to place increased emphasis on certain phases of reading and to reduce the amount of time being devoted to other phases. The averages given in Table I show fairly consistent tendencies, but there was a wide variation in the amounts of time reported by the teachers of each grade.

Similar time-activity analyses can be made for the work in other subjects. It should be clear that these reports do not evaluate the actual methods used by the teacher. This must be done as an additional supervisory check, since the amount of time devoted to an activity is obviously not an index of the quality of the work. This method does not evaluate the results of the work, but it affords a basis for determining possible causes of differences in results. This method does not evaluate the pupil activity in the classroom, but it shows both teacher and supervisor the amount of time given to various types of pupil activity, both directed and undirected.

The facts revealed by a study of this type will bring many problems to the attention of the supervisor. The objectivity of the data and the fact that the data are submitted by the teacher herself make it possible for the supervisor to discuss these problems freely with the teacher and to arrive at definite conclusions. Variations in procedure can be decided upon by teacher and supervisor together. The efficient supervisor can be of great service to his teachers, and he is helped in his endeavor by having objective data on which to base his recommendations.

TIME-EXPRESSIONS COMPREHENDED BY CHILDREN OF THE ELEMENTARY SCHOOL. I

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TIME-EXPRESSIONS USED IN THE LITERATURE OF THE PRIMARY GRADES

Statement of the problem.—Makers of curriculums in history are perplexed with regard to the grade placement of time-expressions because there is no objective evidence as to where the different expressions should be taught, what abilities to apprehend time have been developed at different ages, or what the teacher of any grade may reasonably expect of average children entering the grade. The object of this study is to supply some such evidence, first, by determining what time-sense children's literature assumes that children possess and, second, by testing children who have read such literature to ascertain whether they have apprehended the time-expressions contained therein.

Survey of previous work in the field.—A brief survey of the previous work in the field of time-comprehension shows that very little has been done. Experimentation has concerned itself almost exclusively with very short time-intervals; observation has been limited to the development of the time-sense in very young children; most of the other work consists of abstract discussions of the nature of time.

The conclusions most valuable from the teacher's point of view are the following: The results of the Binet tests[1] show that the apprehension of the longer time-units is dependent on the idea of measurement and that verbal memory may very easily be confused with real time-concepts. James[2] states that thinking in terms of

[1] Henry Herbert Goddard, *Psychology of the Normal and Subnormal*, pp. 257–60. New York: Dodd, Mead & Co., 1919.

[2] William James, *Principles of Psychology*, I, 642. New York: Henry Holt & Co., 1890.

dates is entirely symbolical, as is thinking in the field of large numbers. It is not easy, then, to see why a child, with proper training, cannot understand "1492" as a date as soon as "1,492" is matured as a number-concept. Such symbolism occurs in the case of periods of time other than centuries; if any given time is more than a day at most, it can no longer be conceived. One must count or measure; one cannot image the durations. Any event, then, may be fitted in between two known events, and the group will serve as a symbol of long time-spaces. If the events[1] thus placed are very numerous, the time is judged to be long; if few, short. As the number of events increases, one tends to lose track of them; certain general relationships are therefore abstracted[2] by means of mathematics (counting or dating). When a year is given a number, it can thereby be brought back into the field of consciousness, though the number itself means nothing. Thus, while only those dates with which important events have been associated really stand for anything, the other dates help keep them in order.

It is to be remarked, however, that a child must relive the experiences of people in the past by means of imagination[3] and thus gradually build up for himself sequences from which the time-element may be abstracted rather than accept the meaningless abstraction of others. The abstraction process is going on continually in normal children, at least from the age of five.[4] Events are placed in their time-order by temporal imagination, and an orderly framework begins to take the place of the previous heterogeneous collection of pictures.

In addition to the rather general conclusions thus briefly summarized, one educational study and two other passing references have previously been made in the field of time-comprehension. Mrs. Barnes[5] examined 1,250 school children in California to find the

[1] *Ibid.*, p. 283.

[2] James T. Shotwell, "The Discovery of Time," *Journal of Philosophy, Psychology, and Scientific Methods*, XII (April 15, 1915), 198.

[3] Frank Nugent Freeman, *Psychology of the Common Branches*, p. 132. Boston: Houghton Mifflin Co., 1916.

[4] James Sully, *Studies of Childhood*, p. 120. New York: D. Appleton & Co., 1908.

[5] Mary Sheldon Barnes, "The Historic Sense among Children," *Studies in Education* (Stanford University), I (August and September, 1896), 43–52, 83–93.

extent to which the historic sense develops with age. The part of her test which referred to time was to tell children an undated story and find what questions about time would occur spontaneously. The interest shown was slight but increased steadily with age; no sex differences showed themselves. She concluded that time is little understood until the age of twelve or thirteen.

Holbrook[1] found in her study of material read in childhood that, of a class of 101, only 16 pupils mentioned the time-relations of the memory. Vostrovsky[2] in her study of fifty-six stories written by children found that time ranked *seventh* in the list of general attributes included and that the boys stressed the time-element more markedly than the girls.

From the foregoing it will be seen that, so far as educational investigation is concerned, the field of time-apprehension is practically a virgin field. The present study undertakes to supply further evidence.

Time-expressions used in the literature of the primary grades.—The present article concerns itself with the study of children's literature; a subsequent discussion reports the results of the tests administered in order to find whether children really have comprehended the expressions used. The examination of literature for children of the first, second, and third grades has as its specific objective the determination of how many and which time-expressions are used and their grade placement. It shows what time-equipment the children of the first three grades are supposed to have.

This study is properly to be regarded as only a preliminary to the testing of children in the intermediate grades (to be described in a subsequent article) but withal a rather necessary preliminary. Before tests could be devised, it was necessary to have some standard for guidance in the selection of test items; the basis decided upon was the assembling of all of the time-expressions which fourth-grade children, for example, had met repeatedly in their primary reading. From the test results could then be determined (1) what time-equipment children of the intermediate grades actually possess

[1] Agnes Sinclair Holbrook, "Study in Reminiscence," *Studies in Education* (Stanford University), I (August, 1896), 58–61.

[2] Clara Vostrovsky, "A Study of Children's Own Stories," *Studies in Education* (Stanford University), I (July, 1896), 15-17.

as contrasted with what they are thought to possess, (2) whether they know what the primary-grade literature assumes that they know, and (3) what relation exists between the assumptions, on the one hand, and the results shown by the test, on the other hand.

The first step in the examination of the literature was to select by the random sampling method certain representative books widely read in the primary grades. Those that have been the leaders of several large publishing houses, those written by well-known educators, and those appearing on representative library lists were chosen. The final list included twenty-five primers, twenty-five books for the last half of the first year's work (usually called Book I), twenty-five second-grade readers, and twenty-five third-grade readers, a total of one hundred books.

Each book was carefully examined word by word, and every time-word or time-expression was recorded. The classifications decided upon were "definite," "indefinite," and "comparative." Under the heading "definite" were included all expressions relating to day or night, time of day, divisions of time, holidays, and definite dates. Under the heading "indefinite" were included adverbs and adverbial phrases of time, prepositions and conjunctions used to show time-relationships, verbs referring primarily to timed action, and certain nouns which named a time referring to an indefinite period. Under the heading "comparative" were included time-words which attempted to place events in the past with reference to the present, or to some other specific event, but not by definite dates. All forms of a word were included in the root.

A record was kept for each book; the data for the twenty-five books constituting a group were then brought together and tabulated. The tabulation showed how many times each word was used in all of the books of a certain grade and how many of the books of that group used each word. The time-words were then arranged in order according to the number of times they were used, the word used the greatest number of times appearing first.

The results showed that of the 110 different definite time-expressions found, only 32 are commonly used. These include what might be termed time-units, such as "second" and "minute" (27 in number), and general time-words. "Day," time of day, "season,"

"night," and "year" are the only expressions used often enough to warrant the assumption that they are impressed on children's minds by the reading. All others are used so infrequently that we can expect entering fourth-grade children to have only a fair knowledge of most time-units; mastery, if such exists, must be accounted for on some ground other than acquaintance through schoolbooks.

A second type of comparison was the listing of the definite expressions in the order of the number of books which contained each expression, the word used in the largest number of books appearing first. The results show that of the 110 different definite time-expressions, only 11 are used in 50 per cent or more of the 100 books. These are: "day," "morning," "night," "today," "summer," "winter," "evening," "year," "spring," "Christmas," and "o'clock." All of the expressions used the greatest number of times appear in this list also, and there is added the one word "Christmas." Thus, there is shown to be high correlation between the list arranged according to the number of times each word is used and the list arranged according to the number of books containing each word. The extremely scattering nature of the instruction in time-expressions, other than those mentioned in this paragraph, renders untenable any assumption as to their apprehension by the end of the third grade.

Detailed discussion of certain of the definite time-expressions used.—Of the time-units, "second" is used only 32 times and in 11 per cent of all of the books; "minute," 257 times and in 47 per cent of the books; "hour" (including all of its cognates), 299 times and 70 per cent; "day," 3,566 times and 100 per cent; "night," 1,515 times and 90 per cent; "week," 208 times and 47 per cent; "month," 192 times and 35 per cent. Of the names of the months, "January" is used only 18 times; "February," 13 times; "March," 33; "April," 34; "May," 88; "June," 41; "July," 9; "August," 14; "September," 27; "October," 24; "November," 22; "December," 14. It is interesting to note how little the test results correspond to this order.

"Season" is used 70 times and in 19 per cent of the books; "spring," 320 times and 52 per cent; "summer," 524 times and 67 per cent; "winter," 609 times and 66 per cent; "autumn," 94 times and 27 per cent; "fall," 42 times and 21 per cent. Here again the order of the test results differs greatly.

"Year" is used 894 times and in 57 per cent of the books. "Dec-

ade" and "quarter-century" do not appear at all; "half-century," only once; "century," 11 times and in 4 per cent of the books.

It will probably surprise most readers to find that in the 100 books examined there are 113 cases of the use of definite dates, these occurring in 20 per cent of the books. Eighty different dates are mentioned, 25 of which are of historical interest. Of these 25 dates of historical significance, 3 give month and day only; 7, year only; 5, year and month; 8, year, month, and day; and 2, year, month, day of month, and day of week. However, the date used the greatest number of times scores only 8; that, as one might expect, is July 4, 1776. Next is "1620," used five times. Therefore, it is evident that no mastery of the date-idea is to be expected of entering fourth-grade children, if such expectation be based on the expressions used in books for the primary grades.

As a result of the examination of definite time-expressions, the following were selected as test-items: "second," "minute," "quarter-hour," "half-hour," "hour," "forenoon," "afternoon," "day," "week," "fortnight," "month," "season," "year," "decade" (not included in the books), "score of years," "quarter-century" (not included in the books), "half-century," "century," "Christmas," "New Year's Day," "Washington's Birthday," "Fourth of July," "Hallowe'en," "Thanksgiving," "Valentine's Day," "Easter," and the names of the days, months, and seasons. A few definite dates were included also.

It is to be expected from this study of literature that some time-expressions will be very well known, some little known, and some not known at all. Discussion of the test results will make it clear whether there is any correlation between such expectation and the findings.

Study of indefinite and comparative time-expressions.—A study of the indefinite time-expressions revealed very little of value, since the words themselves, separated from their contexts, gave little help in the determination of time-relationships. It may be noted, however, that the favorite method of dating events in indefinite time is to use "one day," found 982 times and in 87 per cent of the books; "once" is used 1,060 times but in only 82 per cent of the books; "by and by," 314 times and in 62 per cent of the books; "once upon a time," 167 times and in 52 per cent of the books.

It was decided, therefore, to discard indefinite expressions as a class and to devise instead one exercise which would register children's preferences for definite or indefinite expressions. From the foregoing list, "once upon a time" and "one day" were chosen for this purpose.

The expressions classified as comparative are all expressions which attempt to place events in the past by comparison with the present or with some other event (excluding dates, which are classed as definite). These are few in number (13) and very seldom used (274) as compared with the definite and indefinite expressions.

The favorite method of comparing events seems to be to use the word "ago" in combination with "ages," "centuries," "years," "long time," and "long while." It is a common device to strengthen the effect of distance in time by using words in combination with "long, long" or "many, many," such as "a long, long time ago" or "many, many years ago."

None of the expressions is used in more than 33 per cent of the books. It is evident, then, that most writers of children's literature make little attempt to place their stories in time as related to other events.

The following comparative expressions were selected as items for use in the test: "years ago," "long, long ago," and "after the close of the Civil War."

Finally, the teacher may compare the results as here stated with the results of the tests (appearing in a succeeding article) and determine accordingly which time-expressions, if any, should be stressed in the primary and intermediate grades. Where the tests and the study of literature disagree, it must be considered that, while the method of the study reported in the present article has been mathematically precise and objective, the content is a matter of opinion. Most authors have included material to which experience has given pragmatic sanction but which is not the result of scientific investigation. The main value of this first study, then, lies in the assistance given in determining the time-expressions to be used as items in the tests described hereinafter.

[*To be concluded*]

AN EXPERIMENT IN PRIMARY EDUCATION

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A little boy six years of age who had visited a kindergarten with his mother came to school the next day and announced to his teacher, "I want to be promoted to kindergarten again." When will the spirit of the kindergarten with its joyous, purposeful activities and homelike atmosphere find its way into every classroom? The little children from the kindergarten, just awakening to the joy of self-expression through speech and play, enter the first grade where they are immediately faced by a new situation of formal education. The study of the symbols of reading and writing is begun; the children sit in rows of fixed seats and speak only at the teacher's suggestion.

In the Caldwell School, located in one of the foreign districts of Youngstown, Ohio, a typical industrial city, it was found that this attempt at repression, coming so soon after the kindergarten training for expression, had two results. In the first place, the teacher was so busy quieting the restless, talkative children that the reading lessons were much interrupted. In the second place, the situation almost entirely silenced the children who were shy and had little command of English. Practically every class that enters the kindergarten in this school has several children in it who sit for days at the side of the room, refusing to participate in the group activities. Indeed, it was a year and a half before one boy would talk, and another was in school more than two years before he voluntarily entered into conversation. Why should the kindergarten teacher work so earnestly and patiently for self-expression only to have it silenced in the first grade?

The two first-grade teachers, therefore, worked out a plan which they thought would solve the problem, and permission was granted by the principal and primary supervisor to put it into operation.

The two first-grade classes were considered as a unit. Each teacher was responsible for certain subjects; one taught all of the read-

ing groups, while the other took charge of nature-study, health, citizenship, and handwork. During the first half-hour of the morning session each teacher kept her own class for opening exercises, writing, and music. The two classes then came together for a half-hour of directed play in one of the rooms, from which the desks had been removed. After this, all of the children had a lunch of milk and crackers. A short rest period followed. Then a group of from eight to twelve children was taught reading by one of the teachers, while the second teacher conducted a conversation lesson for the rest of the children. In this conversation lesson the children discussed the day's activities, such as the construction of a toy or preparations for a party. When the work was understood, the materials were given to the children, and each child was free to go about his task at his own rate of speed and in his own way, provided he did not interfere with the work of the class. Occasionally the class was called to order to receive additional instructions or to settle a question of behavior which concerned the whole group; but, for the most part, the teacher gave individual encouragement, correction, or instruction. Approximately an hour was devoted to this handwork. At the close of the period the materials were put away; the room was set in order; and the morning's accomplishments were critically reviewed. The children examined the various pieces of handwork to judge the strong and weak points and to suggest how the article might be improved another time. The behavior of the class was also discussed, if it had presented any unusual problem.

During this entire period the first teacher had one reading group after another. The children learned to pass from one room to the other in a very orderly manner. No time limit was observed with these reading classes, for it was found that some days the strongest group would work for a half-hour with sustained attention, while other groups could be held for only ten or fifteen minutes.

The afternoon program was similar to the morning program. During the first half-hour in the afternoon formal English was taught to the two groups in separate divisions. After the play period there were reading groups and socialized activities. This program was modified about one day a week in order to obtain time for excursions in connection with the nature-study, health, or language work.

The results of this program seemed fully to justify the experi-

ment. It accomplished a number of things in addition to the primary purpose. The children were very happy in the various activities, as evidenced by the increased regularity of attendance. They cultivated habits of observation and an interest in life about them. Self-control and consideration for others were developed to a marked degree. The work in English done by these children in the succeeding grades was a decided improvement over the work of earlier classes. Their handwork was remarkably well done. As a result of the undivided interest of the teachers and pupils and the attention of the teachers to individual differences, children passed who probably would have failed otherwise.

The procedure involved problems the solution of which required much more effort on the part of the teachers than would have been required by the traditional method of teaching, but the teachers were more than repaid for the effort by the joy and freedom which the children gained and the satisfactory results obtained. It was with regret, therefore, that the plan was discontinued after two and one-half years because of the increased enrolment which necessitated double sessions of large classes in these rooms.

The question is asked whether this plan would be practicable for any first-grade group. From an administrative point of view, it is very essential that the two teachers work in perfect accord. The preparation of the large amount of materials for handwork would be burdensome to one teacher if assistance were not given by the other; the work in reading might be seriously interfered with by excursions unless there were a willingness on the part of the handwork teacher to consider the plans of the reading instructor. It is well for both teachers to know thoroughly the children's growing vocabulary so that it can be used in conversation and reading.

The fear that a substitute teacher might find it difficult to take up the work was proved to be unwarranted. Each substitute was enthusiastic about the arrangement, as it seemed much easier to teach reading only or to supervise the activities in the other room than to follow the usual program. The children were always proud to show the new teacher that they could take care of themselves.

The enrolment in the first class was 108; in the later classes, 80. The reading group never included more than fifteen children, leaving from sixty to eighty children in the handwork room. Such a crowded

condition is far from ideal; nevertheless, it seemed just as conducive to effective teaching as the alternative plan of having one person teach forty or fifty children in a single room.

As might be expected, the handwork room was a noisy place; but to those who understood the plan the noise was not objectionable. The children gradually learned not to shout across the room but to go quietly to the persons with whom they wished to communicate and talk without disturbing the class. Each child who moved about had a purpose. If a child had difficulty in making his wagon wheels stay on, he went to a child who had made a good wagon and said, "Let me see how you do it." The children who were through first offered to help the slower pupils. Thus, they exchanged ideas and expressed helpfulness.

Much has been written recently about the project curriculum and the educational value of handwork. The time required for reading instruction, however, almost prohibits handwork, unless some arrangement is made similar to the program here outlined. Because the foreigner, who seems to inherit a capacity for handicrafts, profited to a large degree by increased instruction in this work, the American child might well be given the same opportunity. It is important to stimulate the interest and develop any latent powers of the American child along the line of industrial arts.

Many teachers have felt the need of retaining the spirit of the kindergarten while leading children into the larger experiences with books. In a bulletin of the United States Bureau of Education dealing with primary education an obscure teacher dared to express herself in this way:

> In my dreams, I often look forward to a time when thirty pupils will be the maximum assigned to a teacher, and when the first grade shall have two adjoining rooms, one of these similar to the present schoolroom, the other equipped with kindergarten furniture, sand-table, low windows, and window-boxes. In this room children would gather for their morning circle, with conversation and stories; here they would repair when their class work was ended, to work, play, or rest according to their impulses. Such a plan would make possible the use of kindergarten methods in the primary school.[1]

Does not the experiment here reported lead the way to a materialization of this dream?

[1] Extract from a letter quoted by Luella A. Palmer in *Adjustment between Kindergarten and First Grade* (Bureau of Education Bulletin No. 24, 1915), p. 17.

CALIBRATING READING MATERIAL

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For many years the term "graded" has been associated with our conception of satisfactory readers in use in the schools. "Primers," "first readers," "second readers," and "graded series" are typical expressions which have occurred in the titles of books and series published primarily as basic or supplementary reading texts. Since "graded readers" are appearing in ever increasing quantities, is it not time that we call a halt in the procession and ask ourselves more thoughtfully, "What is a graded reader?" or "When is a reader graded?"

The study here reported is an attempt to answer these questions as they were faced in a specific situation, the construction of a new series of readers.[1] This task was undertaken at the suggestion of H. B. Wilson, superintendent of schools, Berkeley, California, who invited the co-operation of the writer and three other men, all of whom were at the time principals of elementary schools in Berkeley.

For the purpose of determining the adaptability of the material proposed for the third reader in the series and establishing the difficulty of each selection as compared with every other, a plan of testing was developed. Fifty-five poems and prose selections had been chosen as desirable material to be included, having met the requirements of certain policies set up by the editors. All of these selections had been made in accordance with the common principles of textbook construction. The opinions of various educational experts, including teachers, had been obtained as to the usability of the materials in the third grade. The recommendations were as reliable as could be secured by this method of selection. In fact, the only means of improving upon it was by actual testing of the materials, utilizing

[1] The series of readers has begun to appear as *The Modern School Readers*, by R. Thompson and H. B. Wilson, published by the Harr Wagner Company, San Francisco.

large numbers of children to determine the relative difficulty of the selections and their adaptability to the third-grade level.

In order to test the selections the four elementary-school principals and the superintendent of schools met as a committee to work out a plan and put it into operation. While making the preliminary arrangements, they discarded one of the selections without submitting it to test because of the predominance of polysyllabic words and markedly involved sentence-structure. The remaining fifty-four selections were apportioned about equally among the five men. Each person read carefully every one of the articles thus assigned to him and selected in each one what seemed to be a representative paragraph, stanza, or other unit. He then prepared a question for each specimen which would require such an answer as would indicate whether the pupil had read the selection understandingly. The words used in each question were either words found in the specimen to which it referred or much simpler words. The questions were made as short as possible in order to determine how well the children were able to comprehend the content of the selections. The difficulty of each question was made equal to or less than that of the specimen on which it was based.

As a means of checking the test thus being constructed, each member of the group submitted the first three or four of his selections and their respective questions to the other four persons for their criticisms and suggestions. Modifications were made accordingly. The following examples are representative of the selections and the questions:

On his departure, the old woman cried again, until a paper seller came and inquired what was the matter. When she told him, he gave her a large sheet of white paper, as a token of pity. She laid it smoothly over the mouth of the well.

How did the old woman get a sheet of white paper?

Putnam and his friends set out to find the old sheep killer. There were six men of them. They agreed that two of them should hunt for her at a time. Then another two should begin as soon as the first two should stop. So she would be hunted day and night.

How many men hunted for the sheep killer at a time?

Dancing and whirling the little leaves went,
Winter had called them and they were content;

Soon fast asleep in their earthy beds,
The snow laid a coverlid over their heads.

Whom did winter call?

The correct answers to each question which would probably occur were determined. These answers were later modified as a result of a study of the responses made by children, especially the brighter ones in the highest grades tested. These pupils made some unusual but well-reasoned replies, which occasionally recurred in the lower grades.

The selections with their corresponding questions were arranged in random order and divided into four groups of approximately equal length. Accurate, clear, and well-spaced stencils were then cut. The common large type was used throughout, the material being double spaced. Each selection was numbered according to its order in the entire set to be tested and separated from those on either side of it by an unbroken line. So far as possible, only clearly printed mimeographed copies were saved for use. The material was assembled in sets of fours, each part to be tested on one of four successive days. Thus the element of fatigue was largely eliminated by resorting to short periods of work on the part of the children tested. In fact, practically all of the children in the various grades finished each part in ten minutes or less time. Instructions for giving and scoring the tests were modeled after the simple instructions used in the Thorndike-McCall Reading Scale.

When the sets were being organized, Specimen No. 35 was misplaced and, as a result, was not tested. Hence, this number does not appear in the data presented. All of the other fifty-three specimens are included.

Since the reading material was to be tested with respect to its difficulty for third-grade pupils especially, it was necessary to obtain the reactions of children in grades above and below the third grade as well as the reactions of pupils in the third grade. Therefore, pupils in all grades from the low second to the high fourth, inclusive, were selected as presenting a satisfactory range of achievement distribution. The difficulty of the selections for each of these various classes would thus be obtained in the series of tests. Four schools in the city of Berkeley, California, were selected because the

distribution of all of the children thus used in the test would approximate very closely a normal probability of intelligence distribution. This satisfactory distribution had been ascertained for these four schools many times previously through various intelligence-test surveys. The average answer of the children in each half-grade would be about the same as the answer of the average child of normal intelligence in the same grade. In addition, there would be a representative group of answers from subnormal and supernormal children. Since the classes of at least four teachers would be included in the returns for each half-grade, a very considerable compensation for the effect of individual teaching would be present.

The tests were given to the children by their own teachers or principals, all of whom were accustomed to giving and scoring scientific tests of intelligence and achievement. The classroom teachers scored the papers, checking each answer according to whether it was a correct response, a wrong answer, or an omission. When a teacher's marking was shown to be unreliable as a result of a checking of a random sampling of her pupils' papers, all of the papers she had scored were rescored by a very accurate person. When the correcting of all of the papers was completed satisfactorily, all of the material was turned over to the writer for further investigation. The remainder of the study was carried on by him with the helpful criticism of his fellow-principals.[1]

Some explanation is necessary as to when a specimen was checked as omitted. If a pupil was absent when a section of the test was given, no attempt was made to make up the loss, but in scoring the set of specimens of such a pupil, the section omitted was disregarded; that is, it was not counted as a group of omissions. In spite of a liberal time allowance for completing each part of the test, a number of the pupils did not continue to the end of each series. In such cases all selections after the last response were not counted. Also, if it seemed evident that a child had not answered the question to a specimen because the mimeographed copy was somewhat illegible, this specimen was not included. Hence, "omitted" cases which

[1] The writer wishes to acknowledge at this point the committee work and helpful criticisms of Principals A. J. Hamilton, R. D. Lindquist, and R. E. Warren, and Superintendent H. B. Wilson, of Berkeley, California.

were so marked were, with rare exceptions, specimens which proved so difficult that no response was made. That this inference in explaining scored omissions was justifiable becomes obvious when a comparison is made of the wrong answers and omissions recorded for the several grades in the case of a given specimen.

After the correcting and the checking were completed, the sets of papers were assembled in consecutive order and grouped by half-grades. The tally sheets were arranged so that the response of each child to each specimen could be recorded as correct, wrong, or omitted. Totals were obtained for each half-grade. To insure the greatest possible accuracy in the tabulation of the data, two persons checked, one reading the results and the other scoring. Their work was checked by comparing the total replies per specimen per half-grade with the total replies per set and the similar totals for each specimen occurring above and below the particular specimen. When a discrepancy was found, a recheck was made. From these very accurate results, the tables presented were compiled.

There are several general items with respect to the testing of the materials which establish the reliability of the interpretations of the data and which should be kept in mind.

1. The tests were made during the last two weeks of the school year. Therefore, (*a*) the responses from the high second, high third, and high fourth grades approximate those of the beginning third, beginning fourth, and beginning fifth grades, respectively; and (*b*) the responses of the low second, low third, and low fourth grades correspond to those of mid-year pupils in the second, third, and fourth grades, respectively.

2. The total number of responses to each specific selection exceeds 540. Hence, the number of cases per specimen is sufficiently large to insure reliability of score values in determining the relative difficulty of the fifty-three specimens.

3. The number of cases in each half-grade varies considerably, the range being from 73 to as many as 120. Hence, the reliability of the difficulty of a specimen is less by half-grades than in the case of the total number of pupils tested; it also varies slightly within groups. However, since the scores of difficulty by half-grades are distributed over six half-grades, the irregularity in any one of the

half-grades could be corrected to a large extent wherever exceptional situations might demand such modification. In the investigation this was rarely found necessary.

4. To insure the best possible results, all tables were carefully compiled and checked.

A careful comparison of the three types of response over the range of half-grades, as illustrated in Table I, indicated that the tabulated omissions were, in reality, due to the marked difficulty of the specimens. Inspection of a large number of papers verified this conclusion. The decrease in the percentage of omissions parallels the decrease in the percentage of wrong answers and the increase in the percentage of correct answers. Hence, in finding the degree of difficulty of a specimen, the writer combined the number of wrong responses with the number of omissions. The column of percentages consists, therefore, of the percentage of correct responses and the percentage of combined wrong and omitted responses.

The ranking of specimens can be made either on the basis of the percentage of correct responses or inversely on the basis of the percentage of difficulty. The percentage of difficulty has been conceived as the percentage which the combined wrong and omitted answers are of the total responses in the case of a given specimen. Throughout the study ranking is based on the percentage of difficulty. The specimens have been ranked from 1 to 53 according to the decreasing order of difficulty. For example, Specimen 25 is ranked first because it presents 68 per cent difficulty, while Specimen 52 is ranked last because it presents only 16 per cent difficulty. In this manner, Specimen 1 is ranked fifty-second with 19 per cent difficulty; Specimen 2 is ranked forty-first with 24 per cent difficulty, and so on.

If all of the selections from which the specimens were taken were incorporated into one book, they should be arranged in the reverse order of their rankings. Such a reading text as would result would contain graded selections in the correct order of their difficulty—the easiest selection first and the most difficult selection last. Such a reader would be a marked improvement over any other text in print from the point of view of reliability of gradation.

However, two additional important questions about each selec-

TABLE I

DISTRIBUTION OF CORRECT, WRONG, AND OMITTED RESPONSES BY GRADES FOR THE FIRST TEN SPECIMENS TESTED

	Second Grade		Third Grade		Fourth Grade		Total	Per Cent*	Rank
	Low	High	Low	High	Low	High			
Specimen 1:									
Correct	44	95	78	82	91	77	467	81	.....
Wrong	28	18	8	8	17	10	89	19	.....
Omitted	8	6	3	2	.....	.....	19	.....	.....
Total	80	119	89	92	108	87	575	100	52
Specimen 2:									
Correct	37	73	74	77	98	80	439	76	.....
Wrong	31	40	15	15	10	7	118	24	.....
Omitted	12	5	.....	.....	.....	.....	17	.....	.....
Total	80	118	89	92	108	87	574	100	41
Specimen 3:									
Correct	21	63	62	67	87	74	374	65	.....
Wrong	38	44	27	22	21	13	165	35	.....
Omitted	21	11	.....	.....	.....	.....	32	.....	.....
Total	80	118	89	89	108	87	571	100	27
Specimen 4:									
Correct	8	62	60	72	91	74	367	64	.....
Wrong	46	49	27	18	15	13	168	36	.....
Omitted	26	7	2	2	.....	.....	37	.....	.....
Total	80	118	89	92	106	87	572	100	25
Specimen 5:									
Correct	8	54	48	52	92	75	329	58	.....
Wrong	41	46	37	32	13	11	180	42	.....
Omitted	31	18	4	8	1	1	63	.....	.....
Total	80	118	89	92	106	87	572	100	20
Specimen 6:									
Correct	10	58	48	68	93	77	354	62	.....
Wrong	31	44	38	19	12	10	154	38	.....
Omitted	38	16	4	5	1	.....	64	.....	.....
Total	79	118	90	92	106	87	572	100	21
Specimen 7:									
Correct	13	71	69	79	97	84	413	72	.....
Wrong	27	31	17	9	8	2	94	28	.....
Omitted	39	16	4	4	1	1	65	.....	.....
Total	79	118	90	92	106	87	572	100	36
Specimen 8:									
Correct	11	68	63	74	87	82	385	67	.....
Wrong	30	36	20	15	19	5	125	33	.....
Omitted	38	14	6	3	.....	.....	61	.....	.....
Total	79	118	89	92	106	87	571	100	28

* In determining the percentages, the wrong and omitted responses were combined.

TABLE I—*Continued*

	Second Grade		Third Grade		Fourth Grade		Total	Per Cent	Rank
	Low	High	Low	High	Low	High			
Specimen 9:									
Correct	6	34	33	41	63	64	241	42	.....
Wrong	31	61	47	47	41	22	249	58	.....
Omitted	42	23	9	4	2	1	81	.....	.....
Total	79	118	89	92	106	87	571	100	4
Specimen 10:									
Correct	10	43	46	55	83	74	311	54	.....
Wrong	27	46	32	34	23	12	174	46	.....
Omitted	43	29	11	3	1	1	88	.....	.....
Total	80	118	89	92	107	87	573	100	13

tion for a specified graded reader need to be answered. In terms of a proposed graded third reader, for example, every specimen included must have been tested and found to meet satisfactorily the two following criteria: (1) Is the selection too easy for beginning third-grade pupils? (2) Is the selection too difficult for finishing third-grade pupils?

Table II is part of the table which was constructed from the complete table illustrated by Table I in order to answer these questions in the case of the fifty-three specimens. By finding the degree of difficulty of each specimen for each half-grade, the score values could be reduced to a common base. Hence, percentage was used. This table also includes the degree of difficulty based on the total number of responses and the resulting rank order of difficulty. An examination of a number of the percentage scores by half-grades will disclose a consistent decrease in these scores for any one specimen from the low second grade to the high fourth grade. By plotting on graph paper the six points obtained for a specimen, it was possible to make the slight corrections for irregularities in percentage scores when the interpretation for a few cases needed to be made more accurately. These cases were those in which some one of the various scores for a specimen introduced an element of doubt as to whether or not the selection from which the specimen had been taken should be included in the third reader.

That these cases were infrequent is evident from the fact that for

the most important or pivotal distributions in the study, those of the high second and the high third grades, the correlations of percentage scores were very high. Beginning with Specimen 5 and selecting every fifth specimen thereafter, a random sampling of pairs of the fifty-three specimens was obtained. Applying the Pearson formula for finding the coefficient of correlation, it was found that (1) the ten pairs of percentage scores for the high second grade and for the total group yielded a coefficient of correlation of .928; (2) the

TABLE II

PERCENTAGE OF DIFFICULTY OF THE FIRST TWENTY SPECIMENS FOR EACH HALF-GRADE

SPECIMEN	SECOND GRADE		THIRD GRADE		FOURTH GRADE		TOTAL NUMBER OF CASES	TOTAL DIFFICULTY	RANK	GRADE PLACEMENT
	Low	High	Low	High	Low	High				
1.....	45	20	12	11	16	11	575	19	52	II
2.....	54	38	17	16	9	8	574	24	41	III
3.....	74	47	30	25	19	15	571	35	27	III
4.....	90	47	33	22	14	15	572	36	25	III
5.....	90	54	46	43	13	14	572	42	20	III
6.....	87	51	47	26	12	11	572	38	21	III
7.....	84	40	23	14	8	3	572	28	36	III
8.....	86	42	29	20	18	6	571	33	28	III
9.....	92	71	63	55	41	26	571	58	4	IV or V
10.....	88	64	48	40	22	15	573	46	13	IV
11.....	84	43	31	30	21	14	572	36	23	III
12.....	89	42	27	19	12	9	573	32	30	III
13.....	91	65	61	48	41	17	574	53	6	IV
14.....	91	73	65	41	29	14	571	52	8	IV
15.....	90	36	48	44	28	25	571	44	18	IV
16.....	92	54	32	28	12	12	571	38	22	III
17.....	72	28	20	9	6	7	571	23	45	III
18.....	89	55	29	18	11	7	569	35	26	III
19.....	81	28	22	6	6	1	570	23	49	III
20.....	83	31	21	10	8	9	571	26	38	III

ten pairs of percentage scores for the high third grade and for the total group yielded a coefficient of correlation of .967; and (3) the ten pairs of percentage scores for the high second grade and for the high third grade yielded a coefficient of correlation of .856, in which case the two grades may be considered as representing a random selection of the six half-grades.

Since the first two correlations are very high, the orders of rank, the magnitude of the scores, and the limits for each of the two grades are almost identical with the same measures of the total group.

Hence, any interpretation based on either or both of these half-grade scores was, for all practical purposes, as reliable as an interpretation based on the total group scores.

Since the coefficient of correlation for the pairs of scores in the high second grade and the high third grade was very high, it is evident that the differences due to the persons giving and scoring the tests were negligible.

With these reliabilities established, the grade placement of the selections was determined.

If any third-grade reader is finally organized so as to meet the actual needs of the pupils in the third grade, the editor must take into account the difficulty of the selections for all pupils in this grade, including those beginning and those finishing the year's work. In order to meet the needs of these extremes, the two questions raised must be answered definitely.

Suppose, then, that the textbook is to be used in situations of varying degrees of complexity. If it meets adequately the needs of the very complex type of third grade, it will more than serve satisfactorily as a reading text for the third grades of a less complex nature. As school systems are organized today, the third-grade classes of greatest complexity are to be found in the large city schools. If the book contains selections the difficulty of which taxes less than 25 per cent of the pupils in these classes, each made up of forty or more pupils, it serves the needs of a very small group of children. In the average good school these weak pupils, generally overage for the grade and making slow progress, are using second readers rather than third readers. The same practice is true in the case of the pupils in the fourth grade. They are using third-grade readers.

Considering retention of materials in the third reader from the point of view of a finishing third-grade class, the analogous situation must be met. If very difficult selections are included in the reader which only a few of the pupils in the large classes can learn to read understandingly, these pupils are more than ready for the fourth reader, in which these difficult selections rightfully belong. In fact, if the series of readers has been graded, the articulation of reading matter according to difficulty becomes so efficient that a teacher has scientific justification for saying that John Jones and Mary Smith have finished the third reader and are ready for promotion to fourth-

grade reading material. Since such an organization of reading materials actually meets the needs of the conditions in a complex city school system, it will be even more adaptable to the smaller classes found in other types of schools.

TABLE III

PERCENTAGE OF DIFFICULTY AND RELATIVE DIFFICULTY OF THE THIRTY-ONE SELECTIONS TO BE RETAINED IN THE THIRD READER AND THE ORDER IN WHICH THEY SHOULD BE INCLUDED

Specimen	Percentage of Difficulty	Relative Difficulty	Order of Placement in the Third Reader
49	21	1.0	1
50	23	1.1	2
19	23	1.1	3
21	23	1.1	4
38	23	1.1	5
17	23	1.1	6
46	23	1.1	7
53	23	1.1	8
39	24	1.2	9
2	24	1.2	10
40	24	1.2	11
51	26	1.3	12
20	26	1.3	13
34	27	1.3	14
7	28	1.4	15
45	29	1.4	16
54	29	1.5	17
44	29	1.5	18
36	30	1.5	19
43	30	1.5	20
12	32	1.6	21
37	32	1.6	22
8	33	1.7	23
3	35	1.7	24
18	35	1.7	25
4	36	1.8	26
42	36	1.8	27
11	36	1.8	28
16	38	1.9	29
6	38	1.9	30
5	42	2.0	31

The application of this conception of placement of materials to the scores of difficulty for finishing high second and high third grades resulted in the tentative placement of the selections submitted to test. The data are included in Table II. The very slight modifications of these placements to be found in Tables III and IV were based

on a consideration of the total scores of difficulty and the corrections for irregularities as explained.

Table III contains the essential data concerning the thirty-one selections recommended for retention as third-grade material and, therefore, to be included in the third reader. The column "Percentage of Difficulty" includes the degree of difficulty as determined by the 540 or more responses to each specimen. The relative difficulty

TABLE IV

DATA CONCERNING THE TWENTY-TWO SELECTIONS RECOMMENDED FOR PLACEMENT IN READERS OTHER THAN THE THIRD READER

Specimen	Percentage of Difficulty	Relative Difficulty	Probable Grade Placement	Percentage of Pupils Needing the Drill
25	68	3.4	V	40
47	67	3.3	V	33
28	61	3.0	V	49
9	58	2.9	V	27
31	47	2.4	V	33
22	56	2.8	IV	48
13	53	2.6	IV	48
27	52	2.6	IV	47
14	52	2.6	IV	41
23	52	2.6	IV	48
29	51	2.5	IV	43
24	50	2.5	IV	39
10	46	2.3	IV	40
33	45	2.2	IV	39
32	44	2.2	IV	37
30	44	2.2	IV	47
26	44	2.2	IV	35
15	44	2.2	IV	44
48	43	2.1	IV	38
41	20	1.0	II	77
1	19	.9	II	45
52	16	.8	II	61

of each specimen was computed by dividing the percentage of difficulty of the specimen by the percentage of difficulty of Specimen 49. The accuracy of these scores is greater than that of the percentages of difficulty, for the latter as originally carried out to two decimal places were used to obtain a finer scaling of relative difficulty.

The simple relation between the various specimens was obtained by determining the relative difficulty of all of the specimens in terms of a particular specimen. Since the first selection in the third reader

should represent the first degree of third-grade difficulty, the specimen selected as the least difficult to be included, Specimen 49, was rated as having unit difficulty. Then, Specimens 7 and 45, for example, were found to be 1.4 times as difficult as this basal specimen, while Specimen 5 was found to be twice as difficult. The difficulty of Specimen 5 as compared with the difficulty of Specimen 45 is as 2 is to 1.4, the ratio of the two relative difficulties.

The order in which the thirty-one specimens should be included in the third reader is given in the last column of Table III. This order of placement corresponds to the order of relative difficulty from 1.0 to 2.0 and therefore corresponds to the increasing difficulty of the specimens. An analysis of the first few specimens and the last few will disclose the fact that the needs of the poorest beginning third-grade pupils and of the best finishing third-grade pupils have been provided for as well as the needs of those pupils progressing through the third reader. Additional selections should be included in the book only after careful testing, and they should be placed in accordance with their relative difficulty, computed in terms of the same denominator.

Table IV contains the data which disclose why the remaining twenty-two selections should be omitted from the third reader and why they belong in the readers for the grades above or below the third grade. The next to the last column shows the probable grade placement of each specimen. Additional testing of these specimens will be necessary in order to determine more accurately the proper placement of the selections in readers for the first, second, fourth, and higher grades.

An analysis of all of the data at hand with respect to these selections which would have been wrongly placed in the third reader produces the specific evidence that Specimens 1, 41, and 52 are too easy for over 80 per cent of the beginning third-grade pupils. Therefore, these selections belong in the second reader or possibly in the first reader.

On the other hand, the remaining nineteen specimens are too difficult for third-grade pupils. In all probability, if these specimens were tested in larger groups of children in the low fourth grade and in the high fourth grade and also in each half of the fifth and sixth

grades, some of the selections would be found to belong in the readers for grades higher than those recommended in Table IV. That such changes in the recommendations would occur is indicated in the data of the last column. Five specimens—Nos. 25, 47, 28, 9, and 31—were too difficult for from 27 to 49 per cent of the beginning fifth-grade pupils. It is easily conceivable that Specimens 25 and 28 might be too difficult for more than 25 per cent of the pupils beginning sixth-grade reading.

The fourteen specimens recommended for inclusion in the fourth reader may be considered as probably fourth-grade material. Specimen 26 would prove too difficult for at least 35 per cent of the pupils beginning their fourth-grade work and too easy for approximately 80 per cent of those finishing it. The other selections would be at least as difficult for the beginning group. Possibly some of the more difficult material, such as Specimens 13, 22, and 27, might be found to belong in the fifth reader when they were tested in grades higher than the fourth grade.

If the reader were to sum up all of the findings of this investigation, some points would be markedly prominent. First of all, he would find that 40 per cent of the material selected for a reader according to some person's opinion as to its difficulty would be ill-adapted to the grade in which the reader is to be used. Second, some of the selections would be too easy and others too difficult, even for children in the grades immediately above or below the particular grade. Third, arrangement of selections according to supposed difficulty without being tested would be chaotic as compared with arrangement after the testing of the material. Fourth, without actual testing, articulation of reading materials for the several grades is a misnomer. Finally, scientifically graded reading materials will insure the selection of reading matter in keeping with the stage of reading achievement of the pupil, and graded readers will be more worthy of their titles.

Educational Writings

REVIEWS AND BOOK NOTES

Upper-grade curriculums.—The spread of the junior high school idea has served to loosen from its traditional moorings the whole question of subject-matter for adolescent and preadolescent children. First has come a wave of revision in the junior high school grades; it is inevitable that these changes induce corresponding changes in the contiguous grades. While this effect is not yet conspicuous in the senior high school, the fifth and sixth grades show instances of revamping.

The reorganization is somewhat in the direction of shelving existing conventions and standards for these grades and bewilders the school administrator who is at once progressive and conscientious. A recent monograph[1] will be welcomed by superintendents and principals because of its comprehensive and well-organized view of upper-grade curriculum practice in fourteen representative cities. The selection of these cities in such a way as to cover almost the entire range in size adds to the general usefulness of the monograph; the metropolitan problems of Detroit and the devices employed in Okmulgee make their respective contributions. Whatever the enrolment the superintendent has to deal with, he can find help in this publication.

The author is director of the junior high schools of the state of Pennsylvania and was formerly principal of the Washington Junior High School of Rochester, New York. In 1923 he entered upon an investigation of the subject, working under the auspices of a committee of the Commonwealth Fund. This investigation followed a carefully formulated plan and was materially aided by the abundance of printed and mimeographed questionnaires employed. The author visited personally almost all of the schools reporting, made observations, and gave instructions for filling out the various blank forms.

In the preliminary chapters the method of the investigation is described, and instances of wide variation in practice are cited to support the author's contention that there is great need for scientific curriculum reconstruction. In chapter iii there is an account of the significant changes which characterize the junior high school curriculum. Chapters iv and v deal in some detail with the program

[1] James M. Glass, *Curriculum Practices in the Junior High School and Grades 5 and 6*. Supplementary Educational Monographs, No. 25. Chicago: Department of Education, University of Chicago, 1924. Pp. x+182. $1.75.

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of studies under the captions "The Core Curriculum" and "Elective Courses," respectively. Chapter vi treats specifically the subdivisions of the "constants." Chapter vii reaches the ultimate in analysis in its careful discussion of the smaller teaching units. A "unit of teaching" is defined as "one group of topics which can be taught in a closely related series of class exercises."

The thirty tables, together with the author's discussion, give a lucid and useful summary of what is being done in Grades V to IX. The author's account of his findings is not unflavored with his own convictions as to what should be. All in all, the monograph is a distinct contribution to the fund of knowledge bearing on the problems of the junior high school.

H. H. RYAN

BLEWETT JUNIOR HIGH SCHOOL
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Tests and measurements once more.—Observers of current publications in education are beginning to comment on the increasing number of texts in the field of tests and measurements. Although the market seems already well supplied, the publication of additional books in this domain shows no sign of abatement. From 1910 to 1920 the measurement movement exhibited all of the prodigality of nature in the production of tests, and now the story of this movement is being recorded in a correspondingly prodigal procession of volumes from the press.

In 1917 W. S. Monroe, J. C. DeVoss, and F. J. Kelly prepared one of the first books of this type, entitled *Educational Tests and Measurements*. After seven years of valuable service, this volume has been rewritten by the authors and appears in a revised and enlarged edition.[1] The general plan and purpose of the older text have been retained. "In describing a test an effort has been made to cover the following points: (1) exact title, author, and grades in which the test is to be used; (2) number and character of exercises; (3) function of the test; (4) an evaluation with respect to objectivity, reliability, and validity; (5) norms" (p. 15). The book has been expanded from 310 to 522 pages. Old chapters have been reorganized and lengthened to take account of recent developments; the chapter on statistical methods has been omitted; and four new chapters have been introduced, dealing with geography and history tests, testing programs, intelligence tests, and the improvement of written examinations. The chapter bibliographies have been extended and brought up to date; a glossary of technical terms (Appendix A) has been added; and a classified list of standardized tests (Appendix B) has been inserted. An index of inadequate scope brings the volume to a close.

"The book is designed," one is informed in the Preface, "for beginning classes in normal schools and teachers' colleges." Except for certain sections, such as that illustrative of the critical evaluation of a test (pp. 404–16), the book

[1] Walter Scott Monroe, James Clarence DeVoss, and Frederick James Kelly, *Educational Tests and Measurements*. Boston: Houghton Mifflin Co., 1924 [revised]. Pp. xxviii+522. $2.40.

will probably not be found beyond the comprehension of the classes for which it is intended. In view of the large body of new material that has been incorporated in the revision and the improvement in the accuracy and clarity of the exposition that has been achieved, this text should enter into successful competition with the best introductions to educational measurement.

FREDERICK S. BREED

The state and private schools.—Education in America had its origin very largely in private and religious effort. In the middle and southern colonies the state assumed little responsibility for the education of its children; even in New England private schools were encouraged. It was well into the nineteenth century, therefore, before it was commonly recognized that the state should provide educational opportunities for all, and it was much later, of course, before public opinion was ready to demand compulsory attendance. The result of this historical development has been a state school system on the one hand and a large number of more or less independent private schools on the other. Since the world-war, however, there has grown up in many quarters a feeling that the state should exercise a more definite control over private schools. This feeling is due in part, perhaps, to the new responsibilities which the state has assumed in relation to the education of its youth. Whatever the causes of the changed attitude may be, it seems clear that the relation of the state to private education is going to be redefined.

A timely bulletin[1] on the legal status of private schools has been published by the Bureau of Education of the National Catholic Welfare Conference. The contents of the bulletin are organized into three main divisions. The first part gives the text of all constitutional provisions and statutes in force which relate to private schools. Each state is treated separately, but at the end of this part there is a classified summary of the whole body of the law on a number of important topics. The second part is organized in the same way as the first but deals with the Bible in the public schools. The third division gives the text of a number of court decisions bearing upon state control of private schools.

The author makes no attempt whatever to interpret the law; he contents himself with a compilation of texts. He seems to have been very careful not to let any statutory provisions escape his attention. The compilation, however, is based upon the school laws as published by state departments of education and such subsequent session laws as have been enacted. Experience leads the reviewer to believe that such school laws are not always as complete and reliable as is generally supposed and that it is desirable in any exhaustive study to consult the session laws themselves.

Anyone concerned with the relation of the state to private schools will find this bulletin a valuable guide to the law as it exists today.

I. N. EDWARDS

[1] *Private Schools and State Laws.* Compiled by Charles N. Lischka. Education Bulletins, No. 4. Washington: National Catholic Welfare Conference, 1924. Pp. 220. $1.00.

The content and extent of education in the past.—Professor Wodehouse of the University of Bristol is the author of a new history of education.[1] The first half of the book is devoted to a discussion of the content of education. With no great attention to detail and in rapid succession, the author depicts the spirit of education in Greece, Rome, the Middle Ages, the age of the Renaissance and Reformation, the seventeenth and eighteenth centuries, and the nineteenth century in England. The latter part of the book traces the slow and painful steps by which educational opportunities have been extended to all. A brief chapter describes the extent of education in Europe generally to about 1700, while a number of chapters deal in some detail with the development of popular education in England.

This book was written by a professor in an English university primarily for English readers. The author seems to have had two purposes in mind, both of which have been accomplished admirably: (1) to make clear the general spirit of education in the centuries preceding 1800 and (2) to give a somewhat detailed account of the history of education in England since the opening of the nineteenth century. The book constitutes, moreover, an interesting chapter in a survey of the history of civilization. American readers will find it stimulating but not adapted to use as a textbook in courses in the history of education.

I. N. EDWARDS

The experimental attitude toward methods of teaching.—The field of methods has been rather thoroughly canvassed within the past decade or two. The earlier books stressed the disciplinary technique of the teacher who could "make the children mind" and gave a prominent place to mastery of subject-matter on the part of both teacher and pupil. More recently notable studies have treated the numerous and varied problems of elementary-school methods and secondary-school methods in separate volumes. Other discussions have emphasized special phases of instruction, such as supervised study, the project method, the socialized recitation, and individual instruction. A new book[2] describes, summarizes, and evaluates the more important general methods of instruction for beginning students in education and teachers who have neither the time nor the opportunity to read the more detailed and specialized treatments of methods of teaching.

The advantages and disadvantages of the textbook method of teaching are indicated. The first reading of a textbook is to be done rapidly and the second reading more carefully for the purpose of answering questions and solving problems. The habit of extensive, rapid, useful reading and skill in finding readily all accessible material on a given topic are emphasized. Collateral materials are distinguished from supplementary readings in that the former expand the treat-

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[1] Helen Wodehouse, *A Survey of the History of Education*. New York: Longmans, Green & Co., 1924. Pp. viii+232. $2.00.

[2] Martin J. Stormzand, *Progressive Methods of Teaching*. Boston: Houghton Mifflin Co., 1924. Pp. xii+376. $2.00.

ment found in the text, whereas the latter may include topics extraneous to the textbook discussion. Certain limitations of the Herbartian inductive-development method with its five formal "steps" are suggested. Reading, thinking, accurate observation, experimentation, practicing a skill, and attentive listening are treated as forms of study. Considerable space is devoted to an attempt to differentiate between the project and problem methods. Pupils must be led to make their own discoveries in appreciation; otherwise the enthusiasm of the teacher who reveals elements for appreciation may seem affected and hypocritical to realistic youth. The laboratory method may be applied to situations in which the use of objects or the process of observation is possible. It is well for pupils to understand the methods of "cramming" in order to meet possible emergencies in later school work and in life. A distinction is made between skill and habit, and it is pointed out that some of the most firmly fixed habits may be anything but skilful. The socialized recitation is indicated as one of the important devices of the class period. Since some type of examination is necessary as an evaluation of the pupil's achievement and as a teaching device, the various new methods of testing are discussed. Brief treatment is given to the planning of instruction and individual instruction.

In the matter of organization and teaching helps, the book contains several desirable features. Each chapter is introduced by a brief outline of its contents. "Assignments" or problems are inserted within the reading material itself in order to stimulate thinking. At the end of each chapter is a test which may serve the teacher as a model or for actual testing of the subject-matter. An occasional footnote reference is given, and at the end of each chapter is a brief list of parallel readings. The book contains little material that is new but merits commendation for its impartial discussion of the various problems treated. The author insists that no single method can be satisfactorily standardized and urges that the teacher develop a progressive classroom procedure through conscious experimentation with a variety of methods. The volume should prove useful for introductory courses in education and to teachers in service.

CARTER V. GOOD

A laboratory manual in educational psychology.—The laboratory manual[1] prepared by Turner and Betts is designed especially to go with Betts's *The Mind and Its Education*. The typical exercise consists of a statement of the object of the experiment, a quotation from Betts stating psychological facts or principles, a description of the procedure of the experiment, a series of questions to bring out the student's observation and interpretation of his experiences in the experiment, and a list of references. Many of the experiments are in the nature of illustrations of psychological occurrences. They do not depend on securing exact records by means of laboratory apparatus; nor do they involve the statistical

[1] Egbert Milton Turner and George Herbert Betts, *Laboratory Studies in Educational Psychology*. New York: D. Appleton & Co., 1924. Pp. xii+218.

elaboration of a mass of data. Apparatus is used to a limited extent, and there are a few experiments which are for the specific purpose of giving practice in statistical procedure, but, for the most part, the experiments are informal and lead to qualitative description rather than quantitative determination. The topics treated in the experiments cover a wide range. They include the characteristics of consciousness, the nature and types of attention, the various forms of sensation and perception, visual illusions, mental imagery, imagination, and so on. These experiments are educational only in an indirect sense. A number of other experiments deal more directly with learning, individual differences, and mental and educational tests. The list of experiments is long, numbering fifty-two, so that the amount of time which can be spent upon any individual experiment is very limited. This is doubtless the reason why the experiments are of the informal character which has been described. Their chief purpose is to illustrate to the student the facts which are stated in the textbook on psychology by giving him an opportunity to make introspection while he is performing an act which brings these facts into his experience.

The material of the book has been carefully worked out and is a good example of its type. It is more useful, however, in making somewhat more concrete to the student the statements of the text than in giving him a conception of what real experimentation is or in making him understand the methods by which psychological laws are discovered. The experiments might be called demonstrations rather than experiments. Furthermore, the experiments are of uneven value for education. Those which deal with sensation, perception, imagination, and so on, are of less value than those which deal with learning. It seems to the reviewer that it would be more useful to include a smaller number of experiments and to work out each experiment in greater detail.

FRANK N. FREEMAN

The evolution and operation of the platoon school.—In order to present the enriched curriculum of the twentieth century in its historical perspective, the author of a book[1] on the platoon school describes the successive stages in the development of our modern curriculum from its early European and colonial conception. To picture the elementary school not as a static, complacent institution but rather as a progressive, ever changing instrument of society, responsive in varying degree to the changing needs and aspirations of our people, is the purpose of the author in the first part of the book.

With this background, the platoon system is presented as the natural adaptation of school buildings and school organization to the demands of the present-day curriculum. Superintendent W. A. Wirt, of Gary, Indiana, is given credit for being the pioneer in utilizing the duplicate or platoon plan of organization. Further trial was made of this system by the schools of Kalamazoo, Michigan. In 1918 Detroit undertook the experiment. At the present time a number of

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[1] Charles L. Spain, *The Platoon School.* New York: Macmillan Co., 1924. Pp. xviii+262.

cities have adopted the plan, either in whole or in part. The major part of the book is devoted to the details of the working out of this system in the elementary schools of Detroit.

The school board of Detroit became intensely conscious, toward the end of the last decade, of certain general conditions obtaining in the schools, expressed in the following statements:

(1) That twentieth-century social and industrial life makes a broad and varied curriculum a necessity.

(2) That, while our educational ideals, our curriculum, and our methods of instruction have been modified gradually in response to changing social and industrial conditions and in harmony with the results of scientific research, we are still attempting to realize these modern ideals through a type of organization that was developed to meet conditions over seventy years ago.

(3) That, while the ideals of today demand that we shall not only train a child in the fundamentals of education but also make an appeal to the social, ethical, physical, and vocational aspects of his nature, we are trying to attain these ideals in a type of school building which was adjusted to conditions existing before the middle of the nineteenth century [p. 44].

To meet the problem, the platoon organization was tried experimentally in two schools in 1918. "The experiment in both schools was a success from the start. The most striking outcome was the spontaneous and whole-hearted endorsement which the new organization received from principals, teachers, pupils, and parents, and the consequent spread of a favorable sentiment throughout the system" (p. 45). More schools were put under the experimental plan, until the school board, in planning for the school year 1920–21, adopted the platoon form of organization for all of the elementary schools of the city.

What, in detail, is the platoon system? What is its plan of organization? In what situations is it practicable? Are the fundamental subjects well taught? How much does it cost? What are its weaknesses and dangers? These and related questions are answered in the text. The book is carefully prepared. The aims in the teaching of each subject are given, together with typical time schedules for pupils and schools. There are 102 figures, most of them a full page in size, which include pictures of classroom work, plans of school buildings, and diagrams of statistical results. The book contains a bibliography, an index, and an appendix; and the Foreword is well worth reading.

DOUGLAS E. SCATES

Curriculum material for the kindergarten and the primary grades.—The teachers and supervisors of the kindergarten and the primary grades of the training school of the Southern Branch of the University of California have formulated a curriculum,[1] which contains much material that will be of interest to those concerned with the education of children in these grades. The keynote of the

[1] Ethel I. Salisbury, *An Activity Curriculum for the Kindergarten and the Primary Grades*. San Francisco: Harr Wagner Publishing Co., 1924. Pp. x+142. $1.50.

curriculum is expressed as follows in the Introduction prepared by Charles W. Waddell:

> This course of study differs radically from those with which most readers are familiar. It is not an outline of bits of formal subject-matter to be covered. It takes its start from the natural activities of the children. It plans to utilize those activities suitable to the child's stage of development, to broaden and deepen desirable interests, to improve necessary skills, to establish good habits of accomplishment, to enrich and extend the scope of the pupil's knowledge. It attempts to show how the pupil's own spontaneous interests and activities may be made to lead to a recognition of real need for reading, writing, number, language, for historical and geographic material, and for other types of classified knowledge which too often are presented to them formally and as though they had values in and of themselves [p. ix].

The book opens with the statement of a few general principles, followed by brief, concise directions for the teaching of the several subjects of the curriculum. The next section is devoted to descriptions of activities which have been carried on in the classrooms of the training school. These descriptions are grouped under four different aspects of educative ability—physical, constructive, intellectual, and social—according as one or another of these aspects is the predominating type in the activity described. Examples are: making a post-office, working out individual problems from wood, painting a picture with fresco paints, finding out about Indians, studying bees, dramatizing a story, giving assemblies, etc. "When the need arises in the physical, the constructive, the intellectual, and the social activities, the children use reading, writing, drawing, music, numbers, and constructive work" (p. 36).

The third section of the volume contains a list of the specific habits and abilities which should result from participation in such educative activities as those described. These habits and abilities are classified under the different school subjects and are supplemented by a list of desirable habits which are general in nature and cannot be classified according to the subjects of instruction.

The final division of the book contains such teaching materials and helps as a reading vocabulary selected from the Thorndike word list and lists of pictures; story books and textbooks; songs, poems, and stories; victrola records; furnishings and equipment; and books for the teacher's professional library.

It is evident from this brief description that the book contains much concrete material which should prove stimulating and suggestive to the teacher who is trying to organize her classroom activities in terms of the present interests and needs of the children and at the same time to secure desirable and necessary results in terms of knowledge, habits, attitudes, and skills on the part of the children. It is a valuable addition to the small number of books dealing with curriculum material for the early grades and should find a place in curriculum courses in normal schools and teachers' colleges.

ALICE TEMPLE

Elementary textbook for general science.—The authors of a new general-science text[1] have endeavored to take their materials for study from the home and the community rather than from the laboratory. There are ten major topics treated in separate chapters: "The Homes in Which We Live," "The Clothing We Wear," "The Community in Which We Live," "How Men Travel and Communicate," etc.

The book has many commendable features. The mechanical make-up is excellent; the many illustrations are interesting and appropriate. There are numerous directions for investigations that can be made by the pupils. Questions for review follow each of the sixty-seven subtopics, and at the end of the book thirty pages are devoted to problems for further study.

The style is simple, clear, and stimulating. How well the authors have succeeded in striking a balance between the information which they give the pupils and that which they expect them to discover for themselves, only use of the text can determine. It is refreshing to find that they expect the pupils to find out much for themselves; the investigations lead the pupils to make discoveries in the home, in the community, and in their own bodies. The community should be interpreted in a large way, as illustrations are drawn from Florida to Maine and from coast to coast. However, in most cases the subtopic ends with an application to the pupil's immediate environment.

The book impresses one as being too voluminous. Sixty-seven topics considered in about half as many weeks, together with hundreds of investigations and suggested problems for the pupils to undertake, constitute a heavy load for a year's work, especially when one notes the range of topics covered. "Heredity and Its Significance," "Studying the Mind at Work," "The Hygiene of Man's Food and Digestion," and "What Causes the Different Climates of the Earth," are samples picked at random. Until we come to some agreement, however, as to the proper grade placement of science material, putting much of what is here presented in the instruction of the elementary grades, we must expect such encyclopedic general-science texts.

E. R. DOWNING

The first book of a new series of silent readers.—Many of the more recently published readers are deliberate attempts to make adjustment to the growing realization of the need for a revision of reading aims, materials, and methods and should be judged as such. Do they reflect consensus of outcomes of critical investigation? Do the authors show that they have arrived at a well-balanced point of view?

A series of readers sponsored by an author who has contributed to the professional literature of reading should not be exempt from critical review.

[1] Hanor A. Webb and John J. Didcoct, *Early Steps in Science.* New York: D. Appleton & Co., 1924. Pp. xvi+692.

The statement of principles followed in formulating the lessons in Book One[1] of this series is extremely inadequate. There is no satisfying synthesis of values. The authors refer vaguely to authorities which support certain theses. They defend the vocabulary of the book on the basis of the Thorndike word count but use it without due insight. The frequency of occurrence is reported for only six words, and the basis of their selection from the six hundred is not set forth in a manner conducive to objective interpretation. Many of the words on which much practice is given are names of objects common in the school environment but not words significant in children's reading.

The book is intended for class use in connection with other readers during the latter part of the first grade or the early part of the second grade. It claims to exemplify the project method but is nevertheless very formal in its conception and in the procedures suggested. The children carry out directions and answer questions of more or less interest, but they do not truly initiate. The pupil responses are varied and more interesting than the reading matter which stimulates and rigidly controls them in the interest of pedagogical purposes. So far as stilted style and lack of spontaneity and continuity in sentence structure are concerned, the book parallels the much-criticized basic readers of other years. From the wealth of material, the best checks, games, and practice materials might better have been selected for publication in more flexible form and not as book or reader content. Action responses do provide checks on recognition and comprehension, but the materials of a sound beginning in silent reading should be far richer and more intimately related to socially significant group activities, more conducive to inquiry and abiding reading interests on the part of pupils.

The book will appeal most strongly to teachers who are just beginning to realize the inadequacies of traditional practice and materials. Those who have experimented with the possibilities of reading based on group experiences will no doubt question the wisdom of inverting the relationship and basing activity on reading, as this book does.

LAURA ZIRBES

LINCOLN SCHOOL OF TEACHERS COLLEGE

Again the project.—No bit of educational "pedageese" has contributed more to the current attack on lesson-hearing than the project. In fact, the two are by very nature the product of two antithetical philosophies of education. For a clean-cut exposition of this point one has only to read the first page of a new handbook[2] on the project. Professor Hosic presents in ninety-four pages an exceptionally interesting and readable account of the modern philosophy of method.

[1] Clarence R. Stone and Helen DeWerthern, *Stone's Silent Reading*, Book One. Boston: Houghton Mifflin Co., 1924. Pp. xvi+112. $0.60.

[2] James F. Hosic and Sara E. Chase, *Brief Guide to the Project Method*. Yonkers-on-Hudson, New York: World Book Co., 1924. Pp. viii+244. $2.00.

The project is successively labeled and discussed in Part One of this treatise as "a philosophy of method," "a method of living," and "a point of view, not a technique." It is upheld as good common sense applied to living and learning. Familiar terms, such as "purposeful experience," "pupil planning," and "pupil execution," are found. The discussion is illustrated, however, by a series of plain, straightforward examples that leave little doubt in the mind of the reader as to the meaning of the author. Part One contains chapters on "What Is the Project Method?" "The Rôle of the Teacher in the Project Method," "Types of Projects and Their Technique," and "Dangers and Difficulties."

Miss Chase prepared Parts Two and Three. Part Two is illustrated and contains 119 pages of sample projects listed by grades. A number of projects for kindergartens, special classes, and the entire school are described. Part Three contains twenty-two pages of "Hints and Helps for Project Teachers" in five chapters, one each on geography, history, the tool subjects, composition, and literature.

The authors do not claim the project method to be a cure-all, a magician's wand, or a substitute for brains. Neither do they imply that it should replace textbooks, courses of study, or objective measurements. They do, however, maintain that the project tends to modify the character and use of books, courses of study, and tests. Herein lies the source of the greatest weakness in the discussion. The authors do not *systematically* show the teacher who is disposed to follow tradition *precisely how* to *modify* the use of textbooks, courses of study, and tests to meet the new procedure. For example, the technique of using textbooks in the project method is described in one paragraph of fourteen lines.

As a "handbook," the content of Part Three is disappointing. Each chapter consists of (1) a list of teaching principles, mostly one sentence in length, (2) a list of the titles of projects classified by types, and (3) a classified bibliography. The bibliographies include out-of-date and minor references but do not list many of the outstanding up-to-date works in their respective fields.

The book is well written. It is interesting and stimulating. The illustrations are suggestive and intelligently located. The point of view represented is sane and refreshingly practical. In the rôle of a handbook, however, the book suffers from a lack of systematic treatment of topics which would bridge the gap between the old and the new in instruction and from the provincialism reflected in the bibliographies in Part Three.

F. Dean McClusky

University of Illinois

A cross-section view of a junior high school in action.—Students, teachers, and administrators of junior high schools will welcome the appearance of a book[1] which sets forth in detail the plans developed in the Holmes Junior High School

[1] Emma V. Thomas-Tindal and Jessie DuVal Myers, *Junior High School Life.* New York: Macmillan Co., 1924. Pp. xx+288.

of Philadelphia for the physical, mental, and moral guidance of adolescent pupils. The treatment is at all times rich in details and supported by illustrations.

The guidance program includes the following major topics: physical guidance, curricular guidance, social guidance, vocational guidance, civic guidance, avocational guidance, and ethical guidance. A separate chapter is devoted to each of these divisions.

The final chapter is unique. Ninety pages are devoted to a list of the intracurricular activities of the Holmes Junior High School by departments, each club or organization being outlined in detail under the headings "Aim," "Activities," and "Membership." The English department sponsors 18 clubs; the foreign-language department, 3 clubs; the science department, 14 clubs; the social studies, 5 clubs; mathematics, 7 clubs; art, 5 clubs; music, 3 clubs; mechanical arts, 6 clubs; home and domestic arts, 9 clubs; and physical education, 6 clubs. An "Etiquette Club" and the "Willing Workers Club" attempt to provide training in social and ethical conduct and altruistic motives. These seventy-eight organizations elect their own student officers, who conduct all meetings and delegate responsibilities to the individual members, the general aim being the development of individuality, resourcefulness, and initiative. The guidance phase of the work is an outcome of the opportunities of the teachers who sponsor the various clubs to watch the social, intellectual, and moral reactions of the individual child in his chosen group.

Curricular guidance takes four principal directions: guidance in the choice of junior high school electives, advice in the choice of senior high school subjects, help in planning special schedules, and counsel relative to the choice of club membership offering the greatest supplementation and enrichment of subject instruction.

The "grade forum" is a novel feature of the program of this school. Through meetings held in the school auditorium, pupils of the same grade meet in a group once a week or less often for the social carrying out of combined educational and guidance projects. These often take the form of health demonstrations, lesson-planning, dramatizations, vocabulary-building, presentation and acceptance of a gift, demonstration of the manufacture of a commercial product, such as a lead pencil, etc. One teacher presents the lesson, the other teachers of the department which is in charge of the forum acting as assistants.

Space will not permit even an enumeration of the innumerable devices described. The book is markedly practical, suggestive, and stimulating to the reader interested in the adolescent school pupil.

G. M. Ruch

University of Iowa

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

ALMACK, JOHN C., and LANG, ALBERT R. *Problems of the Teaching Profession.* Boston: Houghton Mifflin Co., 1925. Pp. xviii+340. $1.90.

BAILOR, EDWIN MAURICE. *Content and Form in Tests of Intelligence.* Teachers College Contributions to Education, No. 162. New York: Teachers College, Columbia University, 1924. Pp. x+74.

BASSETT, LAURA LIVINGSTONE, and SMITH, ALICE WITHINGTON. *Helpful Hints for the Rural Teacher and Teachers of All Lower Grades.* Valley City, North Dakota: Smith & Bassett, 1924. Pp. 130.

BRINKLEY, STERLING G. *Values of New Type Examinations in the High School with Special Reference to History.* Teachers College Contributions to Education, No. 161. New York: Teachers College, Columbia University, 1924. Pp. vi+122.

CURTIS, FRANCIS DAY. *Some Values Derived from Extensive Reading of General Science.* Teachers College Contributions to Education, No. 163. New York: Teachers College, Columbia University, 1924. Pp. vi+142.

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